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A CONCEPTUAL APPROACH FOR DETERMINING  
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FOR WOMEN IN HEALTH AND  
PHYSICAL EDUCATION

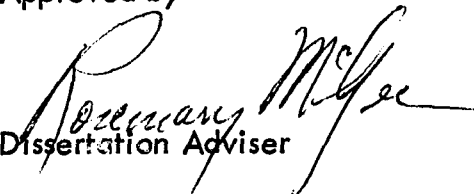
by

JUNE PRISCILLA GALLOWAY

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Approved by

  
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## APPROVAL SHEET

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This study reflects the development of a theoretical model of a conceptual approach to the undergraduate professional preparation for women in health and physical education. The basic reason for developing the design model was to point out a possible different approach in devising curricular patterns. The intent was to develop a broad general idea of how an undergraduate curriculum could be conceived using a conceptual approach.

The major concept, key concepts, and sub-concepts were derived from leaders in the profession, from the literature, and from scholars and curriculum developers concerned with the development of a body of knowledge in physical education. Much of the theoretical model was planned by the writer as a suggested pattern of approach. An attempt was made to group specific concepts relative to professional preparation programs around a common generalized concept of the profession itself: human movement. The model was an attempt also to show the relationships among the concepts to the competencies expected of students graduating from professional preparation programs.

The model was presented in an artistic form showing the concepts in a symbolic way. It identified the physical education process inherent in the concept of human movement. The model is a vehicle showing a hierarchy of concepts. It is characterized by flexibility, versatility, completeness, and interrelatedness. The model itself should communicate movement, the wholeness of the individual, the spiralling and related concepts relative to movement as the necessary ingredients that an undergraduate student should possess, how these might be obtained, and the levels

of progression stressing individualized and continuing professional preparation. All of these are encompassed by learnings characteristic of every aspect of life itself.

Specific examples were cited showing the use of the model in the development of a course and, in reverse, to review a course in light of the model to ascertain whether or not the course was relative to the basic concepts. Ways in which the suggested conceptual approach could be evaluated and implemented were discussed.

Implementation of the conceptual approach, using the model as a vehicle and theoretical framework, will occur as teachers appraise their teaching methodology in terms of concept learning and teaching, and attempt a different and new approach within one or two courses. As course outlines are reviewed, evaluated, and revised, implementation will occur if concept learning is one priority. Implementation should begin on a modified basis and on an experimental basis to ensure the best evaluation of the approach and model.

The interrelatedness of the model, the concepts, learnings, and the individual was shown with the aim of developing a competent teacher of health and physical education. The significance of this study cannot and should not be realized until institutions and physical educators have had an opportunity to explore its full meaning and impact on an experimental basis.

## ACKNOWLEDGMENTS

The writer wishes to express deep gratitude to her doctoral committee for enduring faith and substantial confidence throughout the completion of this study; to Mrs. Ruth Floyd for the time, energy, and efforts in typing the manuscript; to Mr. Don Kunze for the careful and exacting professional drawings; to Dr. Elisabeth Bowles for the helpful suggestions relative to grammatical and composition relevance; and to Miss Emily Campbell, a former student, whose artistic ability enabled the writer to complete the model. Their faith and confidence in the writer was a constant encouragement.

To the many people who contributed to the compilation of the dissertation, especially Mr. Dave Martin and Mr. W. C. Jackson, Jr. for the photographic work and duplicating; to the many friends and colleagues who encouraged the writer to pursue an "idea", my heartfelt thanks.

## DEDICATION

The writer wishes to dedicate this study to three influential persons in the physical education profession and to one special person:

To Dr. Rosalind Cassidy, a person of foresight with devotion to her students, the writer dedicates the "idea" with deep appreciation for the challenge to pursue it.

To Miss Ethel Martus, a person whose depth of understanding is unmatched, the writer dedicates the model for she has seen undergraduate professional preparation as a spiral and as an ever-continuing sequence.

To Dr. Rosemary McGee, adviser and friend, the writer dedicates this dissertation because of her willingness to understand, her ever present hand of assistance, her sensitivity, and her continued faith.

To Mother, the writer dedicates her efforts and finished product for her love, her understanding, and her belief.

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## CHAPTER I

### THE INTRODUCTION

#### A Statement of Change

Educational change and the organizing, planning, and decision making that go into that change can no longer be considered a pleasant luxury. Change is inevitable and will continue. The changing culture has placed such demands upon the educational system that it can no longer take change for granted. Teachers must be prepared for change and not stability; therefore, it is essential that programs of teacher education prepare teachers for the schools of the future rather than those of the past. To a marked extent, man can plan and guide change. Education is an important factor in the change process, for education is a reflection of, and dependent upon, the spirit, and the conflicts of its time.

Facing teacher education today is the challenge of designing a model to meet the changing needs of society, the students, and the schools. Goodlad said, "the most pressing need for curriculum reform today is in the four year college..." (42:111) Graduates of new programs and approaches in the public schools are beginning to move into higher education and finding it lacking in many respects. The Committee for Economic Development in its latest statement on American education makes the following observation:

The preparation of teachers should be geared to the major developments in educational research and to improved staffing patterns of the schools. The schools need variety in the talent and functions of their teachers rather than sameness and standardization. They need teachers who are capable of grasping the value of new ideas and are able to move in new directions when the evidence warrants. (98:14)

Brameld (27) stated that people are realizing more profoundly than ever before that education, far from being limited to schools, embraces the whole complex of human dynamics through which every culture seeks both to maintain and to innovate its structure, operations, and purposes. Brameld went further to predict that "the structure and policy of professional training for those who are to be teachers will undergo important alterations in the foreseeable future." (27:195) Goodlad warned that "educational change of a fundamental sort is enormously difficult. It is ever so much easier to refine the existing structure in a variety of ways than to redesign the enterprise in any comprehensive fashion." (3:16) He suggested that our most imaginative and creative theorists and researchers should work closely with the practitioners in designing models to bridge the gap between theory and practice.

Society promises to change in the future, perhaps even more rapidly and fundamentally than it has in the recent past. (14) Like society in general, education is currently experiencing an almost explosive development of new technologies. The future of teacher education, indeed the future of all education, is irrevocably tied to the future of society. (40) The most fundamental "truth" about American society today is, in Margaret Mead's words, that it is "changing faster than a generation." (111) Carl Rogers observed,

...if there is one truth about modern man, it is that he lives in an environment which is continually changing. We are... faced with an entirely new

situation in education where the goal of education, if we are to survive, is the facilitation of change and learning. (24:vii)

Educators involved in teacher preparation programs today realize that future teachers have educational needs which merit careful and intelligent examination. (94) Many predicted changes in society will require changes or adjustments in the educational program on all levels. (57) In order to make these changes, educators must engage in careful planning and realize that frequent adjustments will be necessary if the needs are to be met. Teachers in the future will perform a variety of tasks. Roles of teachers will be identified and classified by degrees of difficulty, responsibility, and needed artistry. The demands made by a rapidly changing and increasingly complex society have radically altered the teacher's role and the conditions under which that role is carried out. Teachers must be prepared to perform the skills appropriate to specific roles.

As knowledge, curricular designs, and approaches in all fields are changing, so is the work of the teacher changing; it is becoming more serious and the difficult fine art that wise men have always said it is. (3)

The work of the teacher is changing because suddenly and loudly and firmly society is demanding that teachers and schools live up to the ideals they have always professed but not always practiced: the ideal of meeting every child where he is; the ideal of finding in him the unique worth that makes him a precious creature, deserving to be cherished; the ideal of giving him not only proficiency of mind and hand, but also an understanding heart to help him on his way with his fellows; the ideal of building into his mind an unquenchable desire to go on learning for himself and on his own; the ideal, in short, of universal education.... (3:166)

For generations colleges have been hamstrung by the traditional structure of courses, credits, and disciplinary lines. The present concepts of organization are

apparently an impediment to a college seeking the flexibility required for an adequate professional program. The strictly traditional approaches are especially hazardous for a problem solving approach, for example, because professional problems do not fall neatly into three hour credit packages. To meet the needs of future teachers, traditional structure simply will not suffice. It is not enough to learn how to learn. The man who cannot think for himself is still enslaved to other men's ideas. (26) The Seattle Conference report states that, despite the seventy-million dollars expended by the Ford Foundation over the past fifteen years, the nation's colleges continue to prepare the vast majority of future teachers by conventional programs. The Report continues, "tradition in teacher education is a strong force. It does not break, but it can bend..." (40:30)

### A Statement of Need

"The need for a new kind of man suggests a need for a new kind of teacher," (57:3) clearly pinpoints the need for higher education to review its curricula in light of a rapidly changing society. Merely "to change" is not the purpose, but to examine, evaluate, rearrange, and establish new dimensions in education that are challenging seems to be the clarion call.

It is apparent that a design rather than a fixed plan is needed. Theoretical models for teacher education need to be built which stress the conceptualization of teaching. The model can be incomplete and still serve as a tool for thought. An appropriate model or structure does not ensure good quality; it only makes it possible.

The important challenge in teacher education at this juncture seems to be a willingness to attempt certain approaches that might be worthwhile and valid.

Certainly the need for concept learning and teaching is clear. Whatever the model or design may be, it is time in teacher education that all avenues be opened in pursuit of professional preparation for future teachers. This calls for experimentation, innovation, evaluation, and implementation.

The real need in the preparation of teachers today, as Conant (36) explained, is for greater individuality on the part of teacher education institutions. This idea would necessitate the exploration of new and creative ways of preparing teachers. Thus, this paper is an attempt to present an approach for the preparation of teachers in health and physical education.

Ryan indicated that much of teacher training is ineffective because it is based on a rather doubtful model. There is a significant need in the field of education to make the area of curriculum more systematic and comprehensive. (136) The patch-up method of curriculum reform that has been evident the last ten years needs to be replaced by the careful development of conceptual models. A theoretical framework must precede everything else and the curriculum must be viewed as a whole rather than in bits and pieces.

Wiles stated that "the university is the place, where, above all else, innovation and experimentation and model programs in teacher education are conducted..." (1:69) It would be fair and just to say that many institutions of higher learning are engaged in innovative programs in teacher education today. However, there is a need for more institutions to be involved and for more individualized types of programs to be inaugurated.

Goodlad (42) observed that program development in the social sciences, humani-



ties, health, and physical education is still in the beginning stages. Even though there has been some activity in these areas, it does not compare with the intensity or accomplishment in mathematics, physics, chemistry, and biology. Health education, by using a conceptual model and defining its body of knowledge, has surpassed physical education. Physical education is making strides in this direction at the present time; nonetheless, the need is still evident.

It seems necessary to identify and chart certain concepts inherent in the physical education discipline to ensure curricular sequence and a better understanding of the body of knowledge. Insights into the nature of knowledge and into how knowledge should be organized and taught would be of great value. It is imperative that teachers of today and tomorrow be given ways and means to familiarize themselves with current content, methods, and techniques. It is necessary "to train prospective teachers in the processes and concepts that they in turn will develop in their students." (42:110) In this connection, Goodlad made the following statement:

... the structure of academic disciplines stands at the center of curriculum planning and characterizes the very objectives, organizational patterns, and subject matter. The work of the past fifteen years, including identification of the concepts, principles, and methods of inquiry worth teaching and learning, has provided a dimension to the undertaking that tomorrow's curriculum reformers cannot ignore. (42:114)

Physical educators as well as educators in other disciplines need to identify their respective bodies of knowledge which must be covered through curricular experimentation and organized activity experiences. Physical education has been considered a multidisciplinary field involving many of the sciences and humanities. Physical educators and educators from these related fields should study and experiment

to determine the unique body of knowledge of physical education.

The writer of this paper is concerned with the need to develop professional preparation programs using the conceptual approach rather than a more traditional approach. This is not to say that the identification of the body of knowledge is not important. It only indicates that while some professional people are involved with one aspect of the discipline, others might very well be involved with areas that will need further development when the body of knowledge has been identified. There are many aspects of curriculum development and design which need exploration. In this day of exploding knowledge, accelerated curriculum developments, and emphasis on rational man, it seems imperative that the concepts underlying physical education be identified and elaborated if, indeed, it is to remain a part of the school program.

Much has been written about teacher education, but little has been done in the way of research. It seems apparent that the best way to educate teachers is still not known. All the concern about educational change and teacher education does not, however, indicate that everything is wrong with teacher preparation. Certainly improvements and innovations can be cited in teacher education but the total concern, evidenced from within and without the profession, does indicate that teacher education is in transition. Teacher education is moving toward programs based on new concepts involving different educational approaches which are more consistent with social and educational change.

## CHAPTER II

### STATEMENT OF PURPOSE

The idea of the "concept approach" toward curriculum change in physical education is relatively new. Oberteuffer reported a fairly dismal picture of curriculum developments in physical education in 1965:

Currently in physical education, effort toward programming and curriculum evaluation seems almost completely dominated by the 'physical fitness' theme... At the level of state organization...the field is being strengthened immeasurably by the development of state standards for minimum programs and for evaluation. (20:44-45)

In 1964 the Physical Education Division of the American Association for Health, Physical Education, and Recreation made a commitment to a major curriculum effort "directed toward the identification and evaluation of a conceptual framework for the curriculum in physical education." (11:10) This is promising evidence of concern and of effort toward study of the conceptual approach to physical education.

"There are two fundamental steps in organizing for planning: (1) creation of awareness of the need for change, and (2) establishment of specific planning mechanisms and sequences...." (57:59) One purpose of this paper, therefore, is to point out the need for change in determining patterns of undergraduate professional preparation for women in health and physical education. Another purpose is to create an awareness of the need for change in teacher education.

The primary purpose of the paper, however, is the presentation of a theoretical

model or design of the conceptual approach to undergraduate professional curriculum development. This is an effort to establish some specific planning mechanisms and sequences for experimentation, discussion, and further research. One would hope that an adequate and concrete model will be provided which might bridge the gap between theoretical conceptualization and practice in the professional preparation of women teachers in health and physical education.

It should be noted at the outset that physical education as a profession has not yet pinpointed or defined its unique body of knowledge. This particular type of research and study is presently underway but will be a long-range project. Curriculum developers now working in the area of the conceptual approach and developing conceptual models for many aspects of the physical education program will have a much more valid frame of reference when the body of knowledge has been more clearly defined. Perhaps when the body of knowledge is defined many of the conceptual models will come into sharper focus.

Goodlad said that "many curriculum builders seek to organize their fields around primary structural elements of each discipline: the concepts, key ideas, principles, and modes of inquiry." (42:15) It is apparent that many curriculum builders in physical education and in other areas are accepting this particular approach. However, Goodlad went on to point out that "the current curriculum reform movement is marked by an updating of content, a reorganization of subject matter, and some fresh approaches to methodology in fields traditionally taught in the schools." (42:15) It is in this spirit that the writer has attempted to develop a conceptual model for undergraduate professional preparation for women in health and physical education.

No attempt has been made to change content, but only to reorganize and to suggest a different approach to learning.

A need to break from traditional patterns of undergraduate preparation is apparent. This is reinforced by the current knowledge explosion accompanied by a great increase in a student's knowledge before entering higher education. Students in the public schools today are encountering concept learning with greater frequency. Consequently, revision is needed in the approach and design of the undergraduate preparation of future teachers of these students.

Sand and Myers (67) considered the careful development of conceptual models built on sound principles to be the most fruitful route to teacher preparation. These writers advocated the use of a conceptual model to systematize or order the existing knowledge, not to generate new knowledge.

The major concept, key concepts, and sub-concepts in this study have been derived from leaders in the profession, from the literature, from scholars concerned with the development of a body of knowledge in physical education, and from curriculum developers now working on a conceptual model for use in the public schools. Much of the theoretical model has been planned by the writer as a suggested pattern of approach.

An attempt has been made to group specific concepts relative to professional preparation programs around a common generalized concept of the profession itself. The model is an attempt also to show the relationships among the concepts and the sequential relationship of the concepts to the competencies expected of students graduating from professional preparation programs.

Certain definitions have been identified. The most prominent terms are noted for clarification and others will be identified in later discussion.

### Definitions

#### Design

Brown and Cassidy defined design in this manner: "Design is being used to describe artistic invention in organizing program elements." (28:179) This study is an attempt to describe a curriculum pattern for the undergraduate professional preparation in health and physical education. The design will be a suggested plan that has been derived from creative ideas.

#### Model

Webster defined model as "a preliminary representation of something, serving as the plan from which the final, usually larger object is to be constructed... a style or design..." (78.) A model is an artistic form describing concepts in a symbolic way. The very nature of a model requires a hierarchical arrangement. The model to be described will identify the physical education process inherent in the concept of human movement. The conceptual model acts as a vehicle by which the study of individuals and sometimes dissociated elements in the physical education curriculum would be carried to a meaningful, synthesized focus. The construction of the conceptual model involves sub-dividing the concepts into their components.

#### Concept

The writer has chosen to define concept in a general manner before identifying more specific terminology related directly to the model and the curricular design.

Webster defined a concept as "an idea, especially a generalized idea of a class of objects."

Morse and Wingo described a concept as a "mental image or abstraction formed by generalization from many experiences with particulars." (60:249)

Vinacke, a psychologist, identified the term concept in this manner:

Concept formation involves processes of perception and learning by means of which the individual develops an organized and coherent relation to the external world. The consequence of these processes is the establishment of concepts, the cognitive structures which link the individual's present perceptions and learning to his previous experience. (77:98)

The writer has accepted Woodruff's definition of concept:

... a relatively complete and meaningful idea in the mind of a person. It is an understanding of something. It is his own subjective product of his way of making meaning of things he has seen or otherwise perceived in his experience... (142:5)

In the hierarchical arrangement of a model, several kinds of concepts are evident. The following breakdown of terminology relates directly to the model which will be described in Chapter V.

### Key Concepts

The School Health Education Study (73) identified the key concepts as the unifying threads of the curriculum characterizing the processes underlying health education. This definition will be used to identify the same use of key concepts in the undergraduate professional preparation curriculum for physical education.

### Sub-Concepts

The sub-concepts are the major organizing elements of the curriculum in the

hierarchical arrangement. They reflect the scope of physical education as conceived by this writer and as developed by others in the field of physical education. According to Woodruff (141) a conceptual statement says very clearly what the student is expected to know when the learning experience is over.

Imperatore stated that a conceptual sequence is

"determined on the basis of the degree of intricacy of given concepts, appropriateness for attaining a specific educational goal, or on the basis of a definitive study which tests the learning efficiency of varyingly arranged groups of concepts." (105:415)

### Learning Opportunities

In the School Health Education Study, supporting ideas that served as guides in selecting the subject matter of health education were called substantive elements. This writer chose to use learning opportunities instead of substantive elements to indicate the various chances in the curriculum to achieve certain competencies, both specific and general. The competencies revolve around the general concept of movement, especially for the more activity-oriented opportunities in addition to theory, methods, and other related opportunities. These opportunities might serve very well as guides in selecting subject matter in such a curricular design.

### Competency

Competency will indicate ability and proficiency in various aspects of teaching. Proposed guidelines for undergraduate professional preparation will be interpreted as competencies in the model described.

In 1957 the President's Commission on Education Beyond the High School, noting the shortage of excellent teachers, made an effort to disseminate information



about ways of making good teaching go further. The following four interrelated propositions appeared in Effectiveness in Teaching and provided broad direction for this particular curriculum design:

1. That the critical factor is not class size as such but that it is rather the nature of the teaching as it affects learning.
2. That there is little likelihood of discovering some one general method that is clearly more effective than others.
3. That problem-oriented approaches to learning are effective; that inquiry by students and teachers is a promising academic way of life that should be examined for its pedagogical and curricular implications; and
4. That directing learning, which is the essence of the teacher's role in inquiry, is effective teaching. (71:4)

The essence of this study is to design a model using the conceptual approach to the undergraduate professional preparation program for women in physical education. The model will include gradations that correspond to the terminology identified. Some samples will be given at various stages in the curriculum design. It is beyond the scope of this paper to design a complete undergraduate curriculum, course by course, using the model and the conceptual approach. Such an attempt should be left to individual curriculum designers in various institutions. No attempt will be made to outline specific courses except in a few example cases, and no attempt will be made to suggest an entire curriculum pattern for any specific institution. Rather, the intent is to develop a broad general idea of how an undergraduate curriculum might be conceived using a conceptual approach. It is a suggested approach which might be used to design or revise any undergraduate professional curriculum.

"The nation needs better schools and better teachers." (64:2) There are no simple answers to the complex problems of producing such schools and teachers.

Because of constant evaluation and examination of teacher education programs, some of the directions now being taken seem promising. No individual can claim omniscience in the matter of revising professional preparation curricula in health and physical education. However, progress can be attained if there is concern and if forces are consolidated toward improved programs of professional preparation. Teachers of today and tomorrow are responsible for educating children and young people in the essential skills, knowledges, and attitudes to function effectively in society. Therefore, it is imperative that teacher education institutions dedicate themselves to the task of preparing the future teacher to his fullest potential.

Throughout this study the term professional preparation refers to the education program preparing teachers. The writer was cognizant of other types of professional preparation, but for the purposes of this study professional preparation and teacher education have been used synonymously.

This particular curriculum design is merely the idea of one person after thorough study of writings, ideas, and suggestions of others. The purpose is to recommend a curriculum design derived from a conceptual model. It is the sincere desire of the writer that some of the ideas will be worthy of future investigation and implementation. It should be remembered that this is only a first step in evolving curriculum change--an idea!

## CHAPTER III

### REVIEW OF LITERATURE

The literature in the area of concept learning and teaching is extensive. Only recently, however, has there been more literature relating to communication models depicting concepts in the field of education. This review will cover the literature in some broad aspects relating to the topic, a review of the models in other subject areas, and finally the literature relating more specifically to the areas of health and physical education. No attempt will be made to compare the various models or the literature relating to the entire area of concepts. The materials provided understanding and background knowledge in developing the theoretical model for a curriculum design.

#### Review Relating to Structure and Body of Knowledge

A trend which is evident in much of education today involves a fundamental re-examination of the content of subject matter with emphasis upon the structure of knowledge and its method of inquiry. (97) This particular trend has resulted from the fantastic growth of knowledge in recent years and the rapidly accelerating pace of change in all areas of education. Schwab (138) pointed out that the growth of knowledge has forced educators to look for the design or structure of the field of study, a design which would provide a framework for dealing with concerns and problems in the particular curriculum area.

Frankena (100), in discussing education as a process, indicated that it is truly

education only if the process results in the formation of certain desirable abilities, habits, dispositions, skills, character traits, beliefs, or bodies of knowledge. Thus, many disciplines today are seeking to define or outline clearly the body of knowledge peculiar to the subject matter.

In 1964, the Physical Education Division of the American Association for Health, Physical Education and Recreation began developing a conceptual framework and model for the curriculum in physical education. This project is still underway, and it will be another year or more before any concrete results will be known. In 1968, a research project was planned for the purpose of identifying and describing the theoretical structure of physical education. Such efforts have already been accomplished by health educators in the School Health Education Study. (73) Even though some fifteen other subject areas were described in the 1967 Curriculum Handbook for School Administrators published by the AASA, (9) physical education is making a noticeable advance in establishing a theoretical framework and identifying a body of knowledge.

Jerome Bruner of Harvard gave further support for the emphasis upon the structure of knowledge. Recognizing that "...for any body of knowledge there is a minimal set of propositions, or statements, or images from which one can best generate the rest of what exists within that field," (30:56) Bruner identified three qualities to be associated with the basic propositions or fundamental concepts of a field:

1. usefulness in simplifying the diversity of information within the field to make it clear that one case may be simply a subordinate element of something else.

2. the productiveness of a structure refers to the assistance in the generation of new propositions which go beyond the information given.

3. the power of a structure is the qualities facilitation of the manipulation of knowledge, its combinings and recombings. (92:525)

Abernathy and Waltz stated that "one of the exciting challenges of any field lies in the continuing struggle to sharpen definitions, to extend horizons, or to envision a more coherent or provocative theoretical framework." (87:1) These authors called upon physical educators to free themselves from what has been, so that they might be free to think inventively about what is and what might be. (87:2)

Abernathy and Waltz made the following statement discussing a structure for inquiry:

...if a discipline is viewed as a sequential arrangement of a body of knowledge, and if a body of knowledge is derived from a field of inquiry which, in turn is defined by the problems it seeks to resolve, a structure for inquiry may be approached through an identification of general areas of concern within which questions can be asked. (87:4-5)

Ford and Pugno (41) did not consider structure a difficult concept. In their opinion, structure relates to parts of an object and the ways they are interrelated. In terms of curriculum structure, one would consider the various subjects and educational activities and their vertical and horizontal arrangement. Even in developing a structure within a given discipline, various aspects of development would need consideration plus the model arrangement, whether it be vertical, horizontal, spiral, or some other arrangement. Whatever arrangement is chosen, it should show flow from concepts, sub-concepts, and objectives to desired outcomes. The simple knowledge of the structure of a discipline does not answer all the problems to designing a curriculum. Ford and Pugno stated that

...the dependence of knowledge on a conceptual structure means that any body of knowledge is likely to be of only temporary significance. For the knowledge which develops from the use of a given concept usually discloses new complexities of the subject which might call forth new concepts. These new concepts will give rise to new bodies of inquiry, and therefore, to new and more complete bodies of knowledge stated in new terms. (41:13)

This statement illustrates the importance of constant examination and willingness to change as directed by concepts.

If future teachers are given an opportunity to discover and understand the body of knowledge of their discipline, and if they are given some freedom to speculate on possible changes in the structure which their future might bring, not only will they be better prepared to handle these revisions with intelligence, but they will understand better the knowledge and concepts they are currently being taught. (41)

Since this paper is primarily concerned with the preparation of teachers, it is of utmost importance to understand the teacher's role in the design. Bloom gave a good definition of teaching as it relates to concepts:

by teaching we mean... any interpersonal influence aimed at changing the ways in which other persons can or will behave.

...the influence has to impinge on the other person through his perceptual and cognitive processes, i.e., through his ways of getting meaning out of the objects and events that his senses make him aware of. (25:15)

Coombs (95), discussing the content of various subjects, indicated the important part of the teacher. He suggested that those concerned with teaching will be interested in determining what types of designs and what patterns are most effective in teaching each type of content item. There is an urgent call in education today at every level for educators to look anew and to look boldly at the field to help identify its representative ideas, its basic principles and concepts, and its unique structure. It has been with this thought in mind that the writer of this paper has pursued the general

development of an area of concern--the undergraduate professional preparation of women. If curriculum development is to proceed properly, the needs and characteristics of students and society, the way learning takes place, the objectives, and the competencies desired must be considered and constantly evaluated.

### Review Relating to Concepts, Concept Learning and Concept Teaching

This review of literature includes selected readings in concepts, concept development, development of models, and the conceptual approach in areas other than in health and physical education. It was beyond the scope of this study to review all the authorities in the areas of concept learning and teaching. The literature available for review specifically in health and physical education, relative to the conceptual approach, is limited at the present time. Even though the concept approach to curriculum development in physical education is relatively new, concept learning and concept teaching have been in existence in many disciplines for some time. The concept approach to curriculum development has been evident in other disciplines such as health, art, geography, home economics, mathematics, and the sciences.

Phenix (70) suggested that content should be selected to exemplify the "representative ideas" of a discipline. He envisioned the ideas being arranged in a hierarchical order, placing at the top those relatively few concepts that characterize the discipline and are the most representative.

The concept approach to teaching, as described by Hoover (102), had as major objectives the development of conceptual understanding by students and the development of their ability to think. She went further to explain that it is generally assumed that conceptualization may occur at various levels of difficulty relative to a hierarchy of cognitive processes.

Several authorities have discussed the hierarchical arrangement of concepts and have had various opinions relative to the levels of concept development. For example, Dressel (99) suggested that ideas constitute a lower-level concept while principles and generalizations constitute a higher-level. Dressel clarified his point of view by stating that generalizations and principles are a higher level because they require a statement about relationships among concepts.

Burton identified three levels of concept development:

1. the first or definition level, wherein concepts or generalizations are usually descriptive;
2. the second level in which the learner sees and states relationships;  
and
3. the third or explanatory level, where the learner can give justification, predict, and interpret. (91:89)

These levels suggest that conceptual understandings may range from an understanding which may exist among ideas, things, people, and actions to facts, generalizations, or mental attainments.

Tinsley and Sitton (116) define a concept as an idea which a person forms in his mind in order to cope with and understand something in his experience. "It is composed of meaning and feeling, which may or may not be expressed by words." (116:86) These two authors consider the beginning of a concept to be a mental image or idea. As an individual has more experiences and as other learnings occur, the mental image gains meaning. This particular definition adds another dimension to those definitions mentioned in Chapter II, but it seems appropriate to Chapter III because of the specific significance Tinsley and Sitton placed upon the exploration of



the idea of a concept as a mental image or idea in the beginning stages. This relates more closely to concept learning as it is reviewed in this chapter.

Cognitive learning involves mental attainments, facts, concepts, and generalizations. The cognitive domain is essential in the conceptual approach to curriculum development. For an individual to develop as an adequate person, cognitive learning is essential. Cognitive learning as well as affective and developmental learning will be discussed in more depth in a later chapter as the model of this curriculum design is developed more fully.

Bloom, discussing the cognitive processes, indicated that conceptual understanding at each level may involve one or more of the following objectives of learning: (1) knowledge, (2) comprehension, (3) application, (4) analysis, (5) synthesis, and (6) evaluation. According to Burton, knowledge which is organized around concepts is easier to recall than a vast array of facts. (91)

According to Woodruff (118) a concept is a tool of cognition which gives "intention" to thinking and thus has part in mentally directed behavior. Woodruff went further to say that concepts are the materials from which decisions and behavior are produced. He amplified this statement by saying that if one's knowledge is to affect his behavior, his decision-making processes must be developed. One must attain the concepts with which to make his own decisions in order to develop these processes. The current emphasis upon concept learning is directed toward studying education at every level. Concept learning is making important contributions to the understanding of key principles from pre-school through graduate school.

In The Process of Education, Bruner made a case for a cyclical concept of

### curriculum planning:

Any subject can be taught effectively in some intellectually honest form to any child at any stage of development... it is a bold hypothesis and an essential one in thinking about the nature of a curriculum... No evidence exists to contradict it; considerable evidence is being amassed that supports it.. To be in command of basic ideas, to use them effectively, requires a continual deepening of one's understanding of them... A curriculum as it develops should revisit the basic ideas repeatedly, building upon them until the student has grasped the full formal apparatus that goes with them. (29:23)

Darrow contended that

The process of conceptual learning is cyclical: observation, examination, reflection and back again, with abstraction gradually setting in to influence new observations in an ever-spiraling pattern of growth toward understanding, never fully to be achieved, but always to be sought after. (96:287)

Darrow, discussing the teacher's role in conceptual learning, indicated that the teachers who teach for conceptual learning must plan carefully for understandings to unfold. Curriculum designers must plan for the same kinds of results as they develop curriculum and sequences from a conceptual point of view.

Phenix (70) placed emphasis upon selecting content which exemplifies basic concepts rather than explicit teaching of these concepts. He argued that the most fundamental ideas are not appropriate as explicit content until a rather advanced stage of education because of their highly abstract nature. Bruner (29), on the other hand, held that the basic ideas and concepts are not out of reach of the young child.

Purdue Professor Lawrence Senesh (70) is currently experimenting with a program for first, second, and third grade children by exposing them to the same basic concepts in economics that are taught in college-level economics courses. It is the expectation of Professor Senesh and others around the country involved in the same

type of experimentation that the same concepts will be revisited at several points later in the educational program incorporating more complex problems and broadening the application of the idea. This supports Bruner's contention that basic ideas and concepts are not out of reach of the young child. The concepts introduced to the young child are, however, used progressively at later stages.

Taba explained that thinking and acquiring knowledge need not be separated. She suggested two sequences for learning experiences:

...the sequence of ideas to be dealt with, in order of their complexity and abstractness, and the sequence of cognitive processes in the order of increasingly demanding intellectual rigor, such as the precision of analysis required or range of application expected. (74:188-189)

Taba pointed out further that emphasis is being placed upon the processes of securing data which are relevant to decisions students will need to make, rather than attempting to have the school provide the answers to all anticipated problems. Stock-piling of information to be elicited at the proper time is not encouraged.

Meyer pointed out that "the learning of this, that, or the other subject is less important than methods of learning that will lead to the desire for more learning." (55:59-60) She cautioned that "without... flexibility in our educational curriculum, our schools will remain what they always have been, a reflection of a society that has been left behind." (55:60)

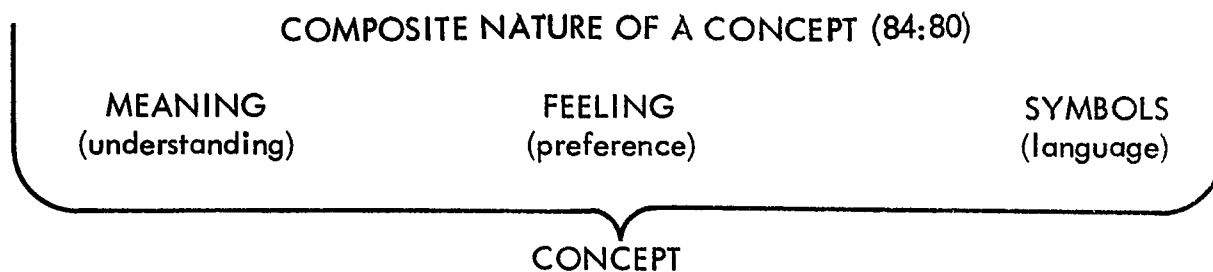
Denemark, discussing the professional preparation curriculum of teachers, supported the idea that "only the bare outlines of what teaching means and what approaches support the learning of certain key concepts can be transmitted in the usual four-year or, for that matter, five-year pre-service program." (97:68)

Denemark further purported that educators in professional preparation programs should provide the prospective teacher with some frames of reference for analyzing his own experience in teaching. Only such a flexible and continuing program of teacher preparation will be capable of supporting an approach to concept learning that does not become frozen into a mold of obsolete knowledge as ascertained not only by Denemark but other authorities who advocate a continuing type of teacher education program.

Ausubel stated that "... much more can obviously be apprehended if the learner is required to assimilate only the substance of ideas rather than the verbatim language used in expressing them." (49:157) Curricula should be conceived and organized with this in mind. Curriculum designers should be concerned with seeking the basic principles of fundamental concepts and methods as they devise the curriculum for undergraduate preparation.

According to Woodruff (84), while concepts are forming through experience, the student is also learning what value the concepts have for him by his impressions of how each concept might affect him. "...as a concept forms in our mind we learn symbols for the whole concept and for each of its parts or qualities, and these symbols become part of the concept also." (84:77)

Woodruff diagrammed the composite nature of a concept as shown in Figure 1. Those involved in the study of concepts find this type of explanation most helpful and beneficial. He gave the composite nature of a concept --meaning, feeling, and symbols--and then described how concepts form experience and become predispositions for future behavior.



HOW CONCEPTS FORM FROM EXPERIENCE AND BECOME  
PREDISPOSITIONS FOR FUTURE BEHAVIOR (84:92)

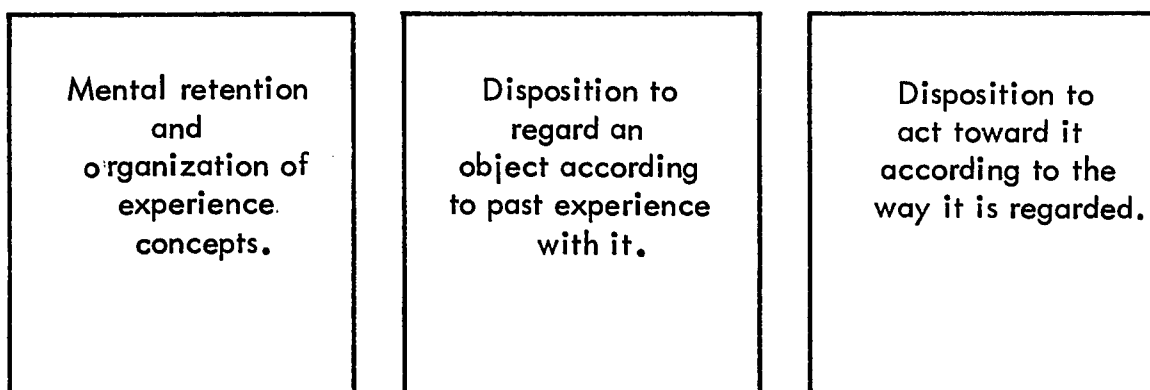


FIGURE 1

COMPOSITE NATURE OF A CONCEPT

Woodruff's model in Figure 2 illustrates the way a concept is comprehended. It appears that concept development may begin at the lower end where the individual has certain understandable experiences that flow upward to the development and understanding of larger generalizations and finally the key concept or the most comprehensive one. On the other hand, that comprehension of concepts can occur from top to bottom. One may start with the most comprehensive concept and the key concepts and have them differentiated to smaller and perhaps more concrete concepts and finally attain the development of meaningful experiences for the person. This two-way flow is paralleled in the model designed for the purposes of this study, moving from the one concept to more detailed competencies or moving from the expected competencies to the key concepts and finally to the one overall concept which seems to have the fullest meaning of physical education.

Yoshida (143), making a theoretical exploration of a model, modeling, and the implications for the educational processes, suggested that modeling be used for repairing possible defects of the currently popular subject-centered curriculum organization. He studied both the philosophical and psychological aspects of modeling as used in the sciences. This study gave impetus to a conceptual type of model rather than a purely subject-centered and more traditional type of organization.

With this background of information, the writer pursued the topic of the conceptual approach to undergraduate professional preparation. There is need to research many complex questions in the field of physical education especially in terms of the body of knowledge and the conceptual approach to learning. There is a need also not to indoctrinate future teachers in training with an elaborate set of

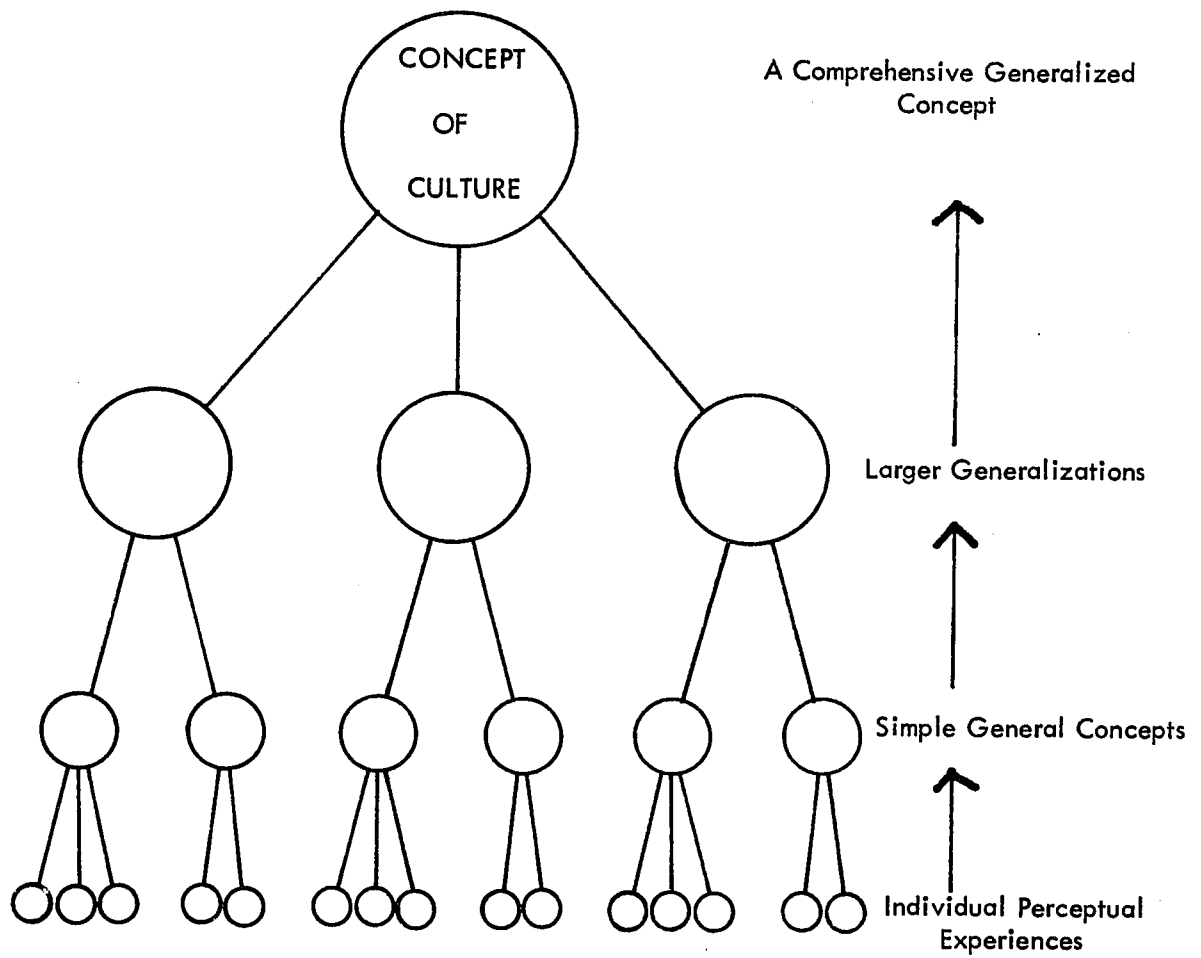


FIGURE 2

HOW CONCEPTS ACCUMULATE INTO WIDE AND  
DEEP COMPREHENSION (84:96)

fixed beliefs, but instead, to help them develop skills, attitudes, habits of mind, and the kinds of knowledge and understanding that will enable them to continually change and grow. The designing of a total curriculum, using a conceptual approach and moving from simple to complex illustrations of fundamental concepts, from lesser to greater precision of analysis, and from limited to broad application of concepts, is an exciting and challenging idea confronting the discipline of physical education.

#### Review Relating To Models In Various Subject Matter Areas

##### Art

Dimondstein (129) conducted a study at U.C.L.A. relative to a conceptual model. Her purpose was to develop a conceptual model in the arts as a means of searching into the essence of aesthetic experience and into the significance of the sensuous response as the most sensitive expression of that experience. The study involved teachers in early childhood education. She observed from working with teachers that there is a gap in teacher education between the "doing" of art activities and the "knowing" of art as a conceptual body of material. Dimondstein attempted to fill this gap by presenting a conceptual framework pertinent to the teachers involved. The model was developed around four art forms: movement, sculpture, painting, and poetry. It was designed to show the similarities and dissimilarities which exist among the arts, based on four discriminating factors:

1. definition and description
2. distinguishing characteristics
3. experimental approach
4. art elements



The formulation of this conceptual model was attempted to give tangible evidence to the belief that while teachers must develop their own sensibilities, they do not have to be artists to provide rich art experiences for children.

### Geography

Imperatore (105) reviewed literature related to geography teaching in the elementary grades. He reported some work by S. H. Engle who suggested that the basis for structuring the social studies curriculum must be general ideas or concepts with each basic concept serving as a focal point for relevant data. Imperatore (105) reported that the development of curricula based on conceptual models involves the following steps:

1. precise identification of concepts
2. determination of conceptual sequence
3. construction of conceptual models
4. deciding at what level of intricacy the concepts should be developed at a particular grade level.

In Figure 3, Imperatore illustrates a conceptual model based on the concept of PLACE which is a geographic concept taught on the elementary level. He points out in this model that all the individual elements or components, when synthesized, constitute the concept of PLACE. Imperatore thought the conceptual model could be an effective guide to elementary geography content. He suggested the hierarchical arrangements of the geographic elements that make up a concept would encourage better organization of the subject matter.

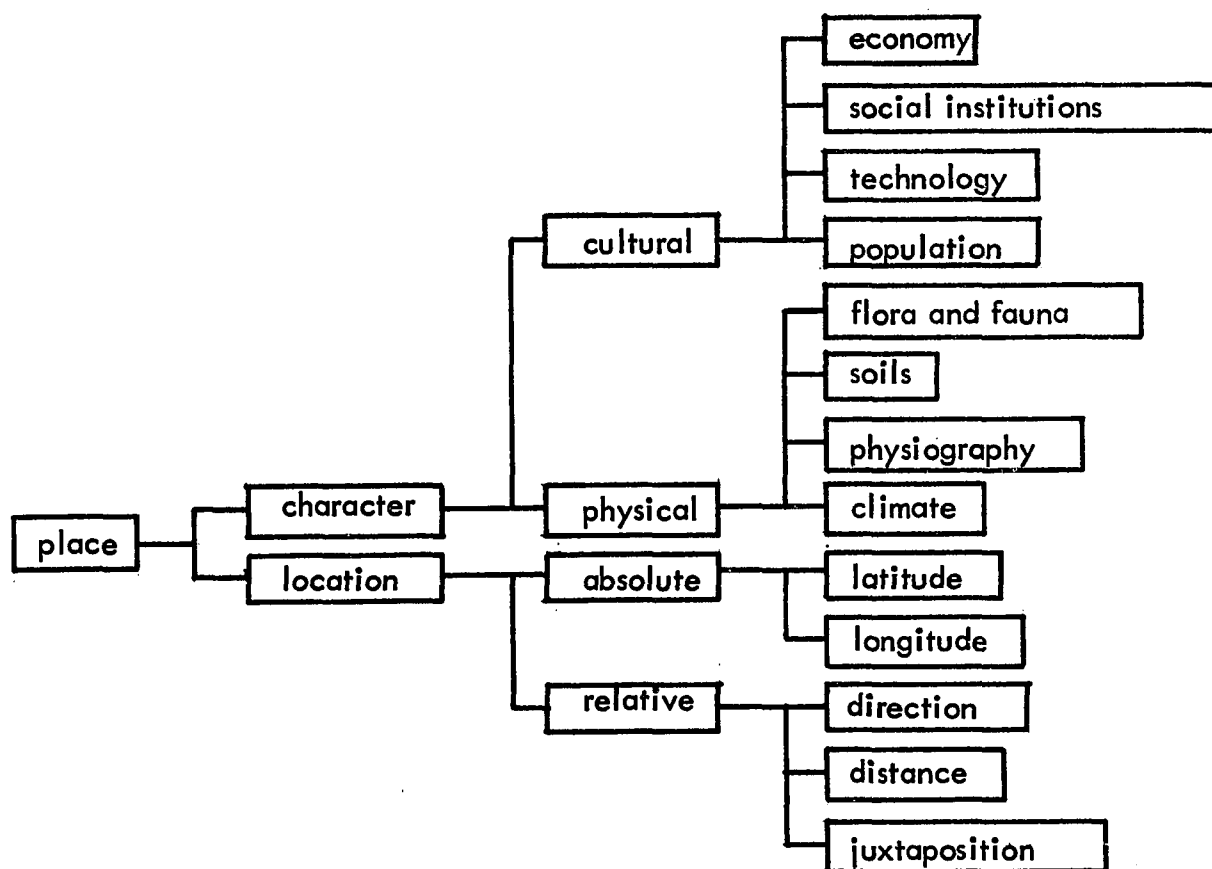


FIGURE 3

A MODEL OF THE GEOGRAPHIC CONCEPT: PLACE (105:416)

Imperatore's model is an example of one content area in geography which could be applied to other subject areas. It is important, however, to see first that the discipline as a whole is functioning with some general or broad concepts. Starting from this point of view, the model and various specific concepts can be broken into meaningful learning experiences for students. Even though Imperatore illustrated a model for one content area on the elementary level, curriculum developers can note the sequence, the model, the flow, and the objectives involved.

#### Art--Professional Preparation

Hubbard (103) explained how art teachers were exposed to a planned sequence of conceptual learning experiences as part of their professional preparation. He thought as they became teachers they would contribute better to the conceptual development of their students. A large part of the training of all art teachers will be conceptual, according to Hubbard. He viewed the acquisition of concept learning in two ways:

... that which is to be learned by students in training and that which is to be learned by the students he plans to teach. And yet, one cannot pursue this topic without coming to the realization that the future teacher can hardly expect success unless he, himself, possesses some knowledge of the general study of conceptual learning... (103:11)

#### Mathematics

Dienes, reporting at a conference on mathematical learning, indicated the following common features in experimental work on learning mathematical concepts:

1. emphasis on structured learning
2. emphasis on meaning, understanding, and discovery as primary as opposed to rote learning

3. creation of a positive attitude (motivation) toward learning
4. the extension of concepts beyond those of the four fundamental operations
5. induction always precedes deductive approaches (49:233)

### Science

Describing the role of concepts in science teaching, Novak (49) stated that a vertical ordering of experiences, for example K to 6 or K to 8, can provide no assurance that sequential growth of the children's understanding of the major ideas in science will occur. Novak continued describing "hierarchies of organization" and appropriate experiences at each grade level that contribute to the understanding of conceptual schemes. Novak diagramed the curriculum matrix like the one in Figure 4 saying that it is a "schematic representation of science curriculum planning based upon selected 'blocks' of experience that may lead to understanding of the 'process' of science together with major concepts of the 'products' of science." (49:247) Novak explained the model in Figure 4 in this manner:

... the x axis represents considerations in the process of science that would be involved in planning specific student activities; the z axis represents relevant experience at the origin and later experience vertically indicated. (49:246)

The blocks constitute some activity that could be given to students to illustrate a given conceptual scheme and process idea. This particular model seems to depict the interdependence of various conceptual schemes and yet the interrelated matrix also. It is an example of another model which is apparently useful for the purpose for which it was designed.

### Instructional Media-- Higher Education

Ullmer (139) developed a model for instructional design that would reflect an

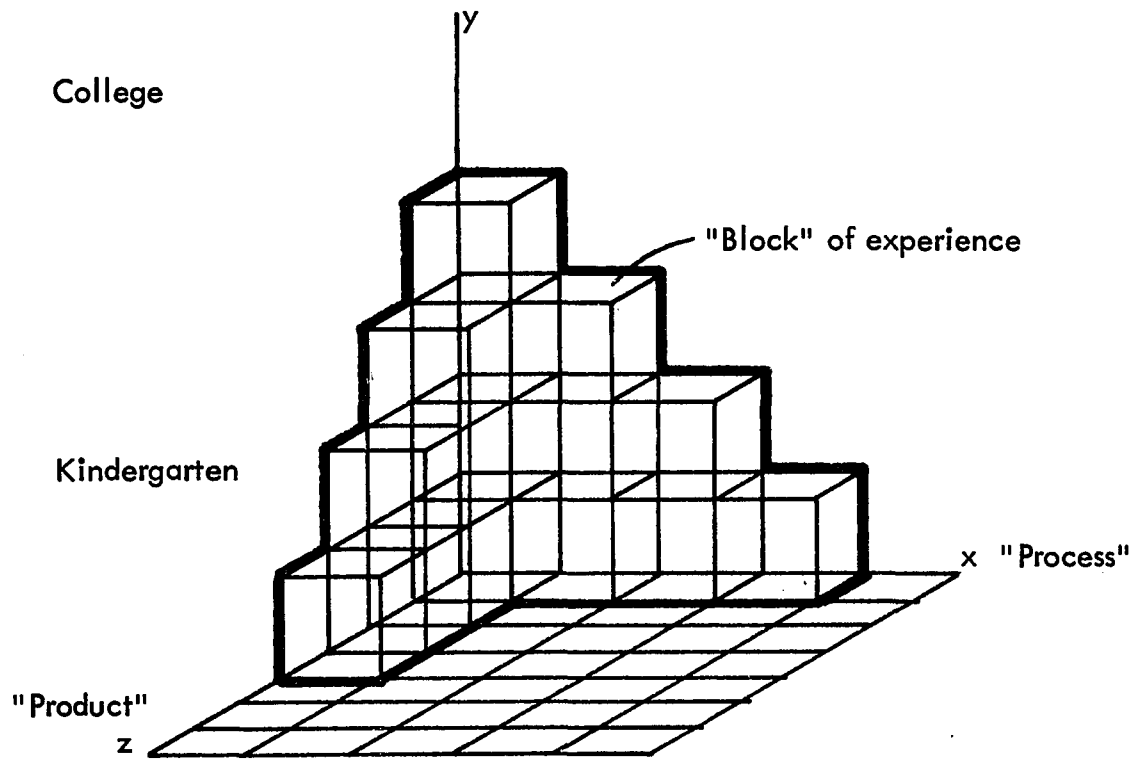


FIGURE 4

SCHEMATIC REPRESENTATION OF SCIENCE CURRICULUM (49:247)

operational interpretation of the meaning of instructional technology. He was concerned with the area of instructional media and technology in curriculum areas in higher education. He developed three broad design phases: the functional definition and analysis phase; the instructional strategy formation phase; and the programming phase. Ullmer concluded that the instructional design model should be recommended for general application in practically all instructional situations in higher education. The model itself was unavailable, but the three phases of the design have much meaning. Ullmer's design model, consisting of the three phases, is most appropriate because of its sequence. The three phases are applicable to this study and the development of the model designed because the flow of the phases has influenced the writer to think in terms of a definition phase, an instructional phase, and a program phase. Even though there may be some variation within each phase as the model is developed, essentially the basic phases are explored as designs are developed for curricular use.

It is interesting to note the similarities of the developmental phases in the designs that have been described thus far in this section. With the exception of a few variations, practically all have had some of the same ideas and developed them in practically the same sequence. Most of the models have described a hierarchical arrangement, a sequence of concepts, a flow within the model identifying concepts, the interdependence of concepts and also the relatedness of concepts. The models are merely samples and guides; they have been designed with certain objectives in mind and with certain outcomes in concept learning anticipated.

### Teaching

Brandwein, discussing a general theory of teaching, illustrated the teaching of content in a traditional and then in a new model.. He stated that much of the teaching enterprise in years past is seen in the model below: (15:147)

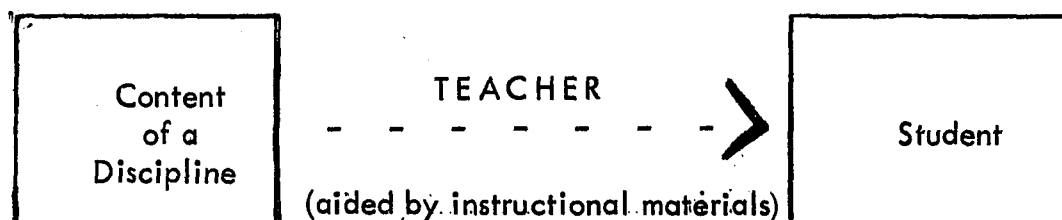


FIGURE 5

### TRADITIONAL ILLUSTRATION OF TEACHING CONTENT

This particular model clearly shows that the teacher transmitted the content. In the best thinking today relative to the theory of teaching, it is agreed that the emphasis is on the response of children. It is important, therefore, that the teacher creates situations which involve children in activities that enhance the acquisition of skill. Rather than being a transmitter of content he becomes a guide or facilitator.

... the traditional role of the teacher has been drastically modified. The teacher as a display device or dispenser of information is being replaced by the teacher as a designer and director of learning experiences. Presenting materials to the student is seen as a minor role, whereas selecting and directing the preparation of appropriate instructional materials is seen as the primary role of the teacher. The emphasis is on instructional design skills with a decrease in emphasis on instructional interaction skills. (112:13)

A conceptually organized curriculum provides for continuous progress or continuous experience. Thus, Brandwein's second model shown in Figure 6 more clearly illustrates the new enterprise in teaching. The models which show a "flow" of processes and concepts are much more appealing to the writer who is interested in designing a model that shows stability as well as the fluid elements of a curriculum which are used to achieve the desired goals.

### Health Education

The School Health Education Study project (73) is perhaps one of the most comprehensive efforts to date using the concept approach. Since health education is very closely allied to the field of physical education, writers and researchers in physical education have gained much from the study. One of the first efforts of the project group was to identify the body of knowledge. As principal ideas were identified, an analysis of the structure of the knowledge that would reveal certain key concepts was also underway. A very thorough and intensive survey and research project gave the background for the development of a conceptual model.

For the purposes of this study, only the conceptual model and its meaning will be discussed. The conceptual model for the health education curriculum is shown in Figure 7. This conceptual approach consists of a hierarchy of concepts developed into the framework. The hierarchy of concepts portrays the unified concept of health which appears at the highest level of the hierarchy. It should be noted that, throughout the model, all aspects are three dimensional denoting that all health concepts embody the physical, mental, and social dimensions of any person.



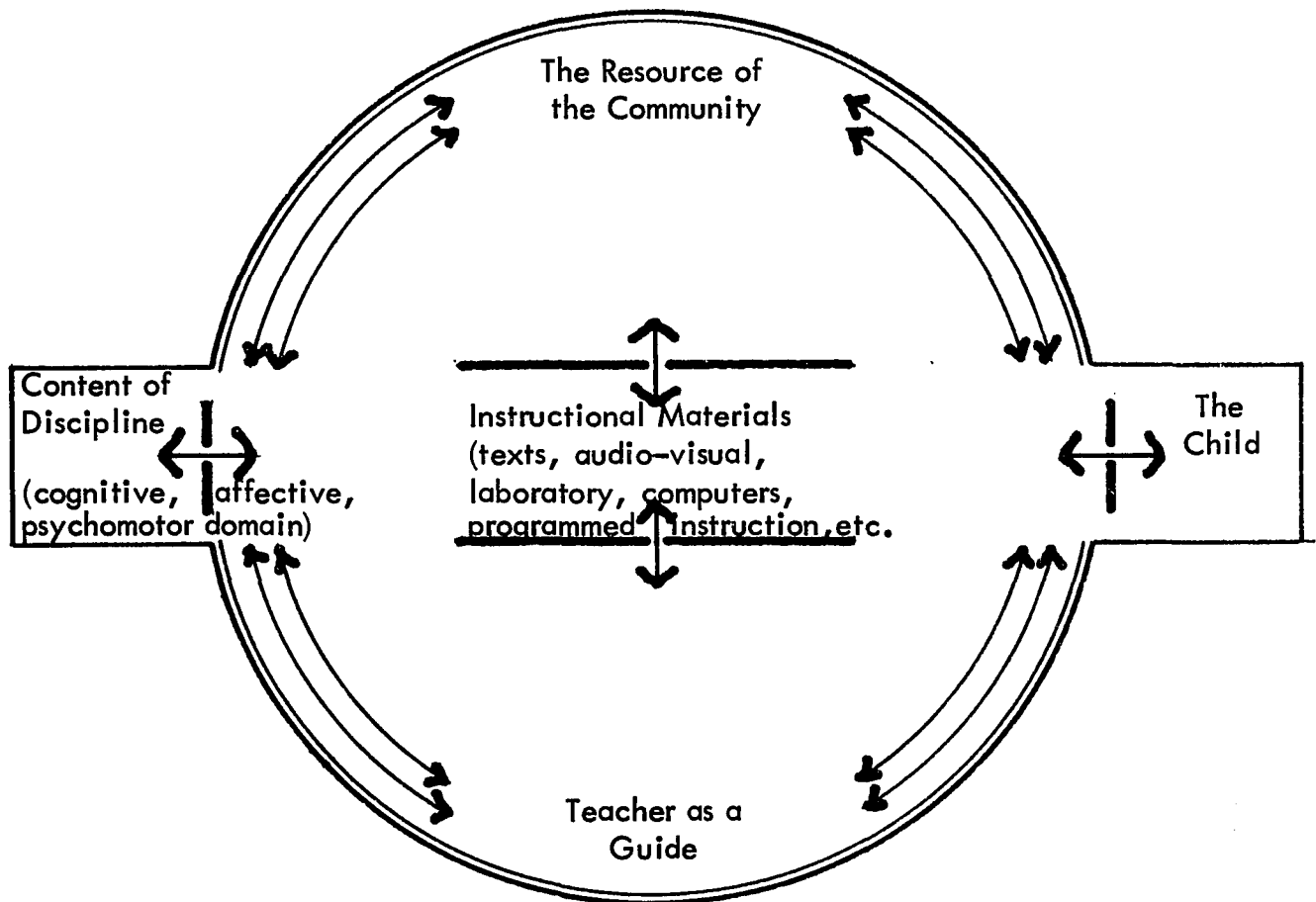


FIGURE 6

A MODEL OF A NEW ENTERPRISE IN TEACHING (15:148)

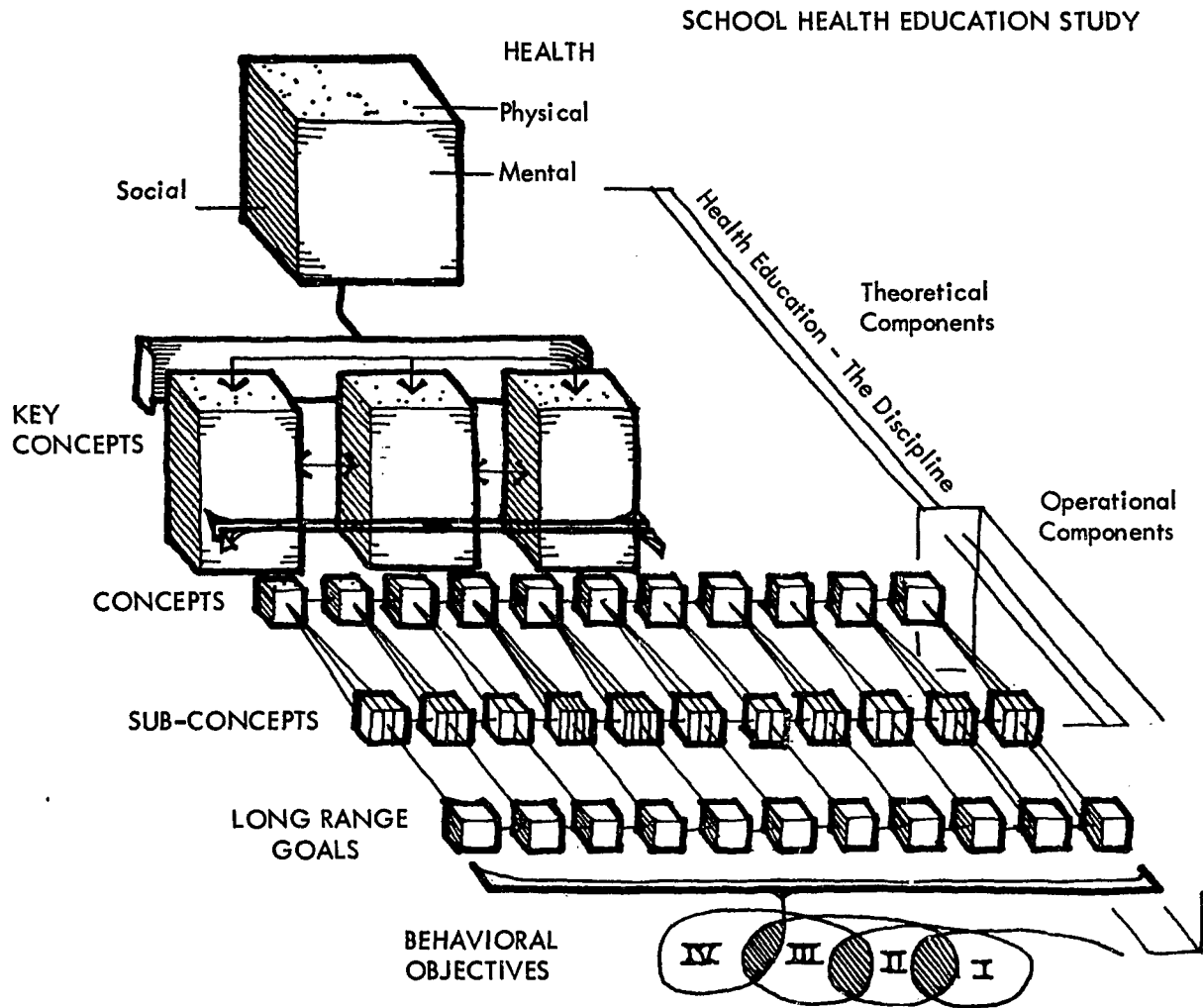


FIGURE 7

CONCEPTUAL MODEL FOR THE HEALTH EDUCATION  
CURRICULUM (73:97)

The next level, as one moves down the model, focuses on the three key concepts. These are considered to be the processes underlying health; they serve as the unifying threads of the curriculum. These key concepts are growing and developing, interacting, and decision-making. The next level in the model is composed of ten concepts and sub-concepts. According to Goodlad (42), these are the organizing elements of the curriculum. The concepts and sub-concepts include thirty-one different health topics. The sub-concepts are the supporting ideas which guide one in selecting health education subject matter. The sub-concepts also provide the basis for the selection of behavioral objectives. At this point in the model, the sub-concept level, a transition is beginning to develop which leads toward the operational aspect of the framework. Previous to this point in the model, one has been concerned with the theoretical components.

The long-range goals and behavioral objectives are at the two lower levels of the model. They serve as guides for the educational outcomes of a sequential program in health education. The goals are long term general outcomes, and the behavioral objectives are more specific and operational. Both the goals and behavioral objectives are stated in terms of three domains: cognitive, affective, and action.

There is a vertical organization about the model indicating four levels of progression. For instance, Level I indicates the least complex objectives and so on. The horizontal organization denotes the sequence of objectives at a given level. Such a concept approach has definite and important advantages in curriculum development.

Creswell made the following statement:

... developing a curriculum around the central ideas about health provides the stability that is greatly needed in health teaching. Such an approach

offers a flexible framework for organizing the scope and sequences of a comprehensive health education program. Finally, it serves as a reference for determining the educational objectives, the evaluation and selection of materials, the planning of learning activities, and the evaluation of student progress. (10:8-9)

### Review Relating To Models In Physical Education

Hileman (132), studying the emerging patterns of thought in physical education in the United States between 1956 and 1966, identified the differences between the conceptual emphases in two periods of time. She analyzed ideas and concepts that were presented in the scholarly literature between two five-year periods, 1956-1961 and 1961-1966, and described the differences in terms of five general patterns of thought. The first pattern seemed to focus attention on the development of a professional position humanistically oriented. This pattern grew out of a critical examination of the profession and an awareness, on the part of the profession, of the importance of the individual in the educational process. The second pattern of thought developed from three different theories relating to the role of movement in establishing a theoretical foundation for the profession. The three theories as explained by Hileman, are movement education, the art and science of movement, and the significance and meaning of movement. The third and fourth patterns were related to the development of the scientifically oriented, and humanistically oriented concepts of research. The fifth pattern was related to the concept of sport as an element of the culture. These patterns reflect an interest in defining a professional position for physical education which is humanistically as well as scientifically oriented. Certain implications from Hileman's study are applicable to this study. The second pattern of thought, developed

from different theories relating to movement, has particular meaning and significance in the development of certain concepts in the model. These ideas will be developed more adequately in a later chapter.

McIntyre (135) studied a conceptual framework for a humanistic physical education curriculum in higher education. Her purpose was to develop the conceptual structure and to translate it into program designs for Michigan State University. An examination of the foundations for curriculum development such as the purposes of higher education, the needs and developmental tasks of the students, and an historical perspective and present view of physical education were used as an effective basis from which to design the program. Three program designs were projected for use in the instructional program in physical education. McIntyre made the following conclusions which are pertinent to this study:

1. a conceptual structure is derived from a theoretical position one holds concerning the role of purposeful physical activity for the development of man in contemporary society.
2. the content of physical education concerns physical activity and human movement in its variety of forms and its effect on the individual in his environmental setting.
3. organizing the physical education into a comprehensible humanistic structure is postulated to be an effective way to present the content of physical education to the students who need to acquire concepts and generalization of the purpose and function of physical activity in relation to human behavior and who need to develop skills and values to cope with the environment and successfully meet the problems and accomplish the tasks of attaining responsible adulthood. (135)

McIntyre also concluded that there are many ways to structure the knowledge of human movement and physical activity for curriculum development in higher education. The conceptual framework used in McIntyre's study was intended as an

initial step. Her contention was that a design which allows personal feeling, worth, and value to be the forces of learning is of great value in the highly scientific and technological world of today. She further noted that scientific evidence supporting the conceptual structure is sketchy and almost non-existent especially as it relates to explaining or justifying subjective and affective learning. McIntyre expressed a final challenge:

... physical educators who concern themselves primarily with the totally human form of behavior-- purposeful human movement which is both unique to each person and yet common to all mankind--are faced with the task of developing, implementing, and evaluating such programs. This is the challenge of the profession if the values inherent in purposeful physical activity are to have meaning and significance to man and if they are to enrich man's existence. (135)

Austin (120) hypothesized that a conceptual structure of the content of physical education arises from a theoretical conception of physical activity. Within this framework, Austin made three basic postulates:

1. the act of moving is a product of man's internal system
2. the expressive quality of the movement act is a personal matter related to man's unique capacity for movement
3. movement is a major force in extending and maintaining the resources of man. (120)

Austin reduced these postulates to three major concepts, which provided the framework for the conceptual structure shown in Figure 8. As a result of a program design derived for physically handicapped students in grades one through twelve within the conceptual structure, she concluded that physical education has an identifiable body of knowledge and this can be conceptually structured in a school program. She

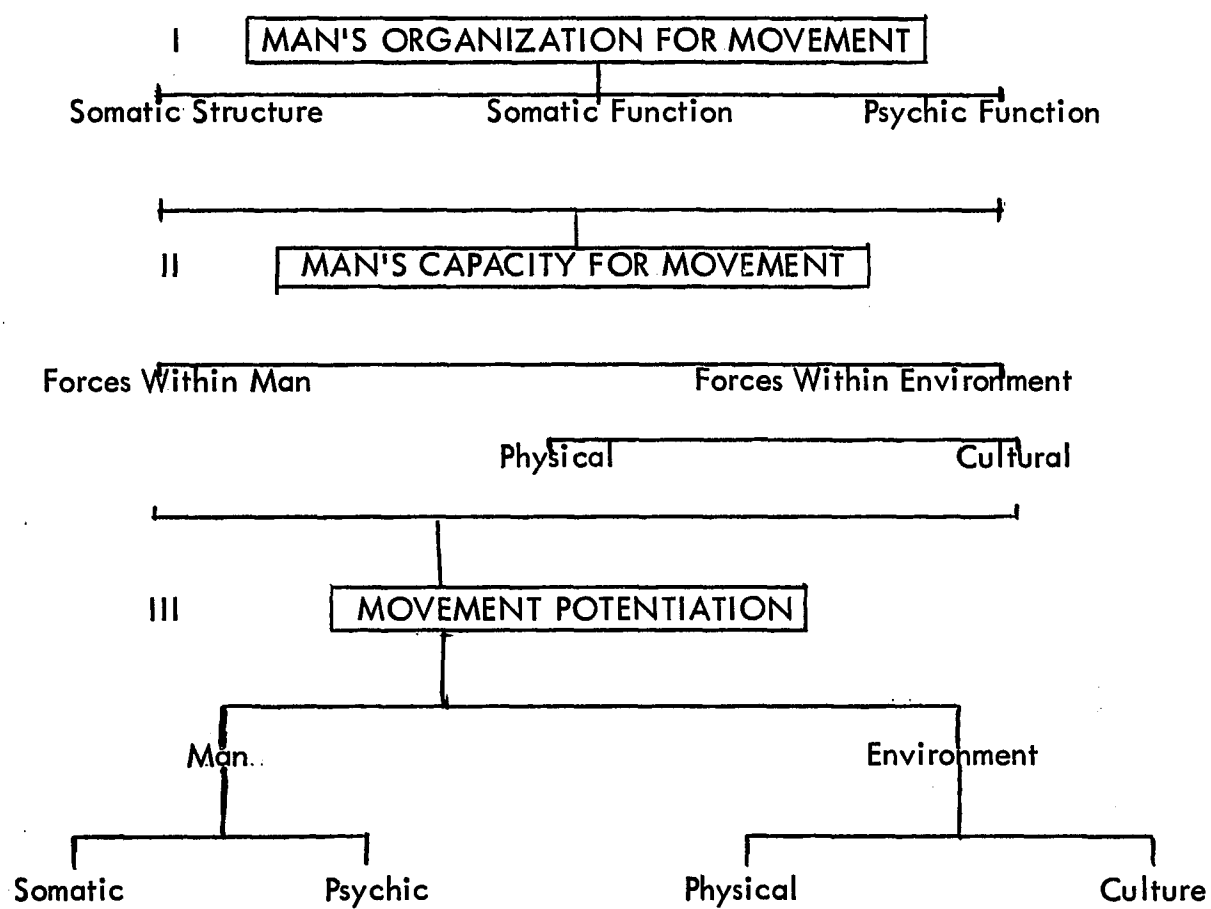


FIGURE 8

CONCEPTUAL STRUCTURE OF THE CONTENT  
OF PHYSICAL EDUCATION (120)

contended, as did McIntyre, that there are many ways to structure the content of physical education. Austin predicted that a program design can be derived from a conceptual structure. The conceptual structure may need to be adapted to varying situations and circumstances. Austin recommended that scholars, teachers, supervisors, and curriculum developers in physical education continue to revise and review a conceptual structure and that definitive criteria be established upon which to accept or reject the conceptual structure. Austin also suggested that units of instruction based on the conceptual structure need to be developed for grades kindergarten through twelve with objectives, program content, and methods of evaluation specifically in mind.

Jewett (11) gave several criteria for a model in physical education. First, she advocated that it must be conceived so that it leads to an action-oriented program. Second, the conceptual model must clarify the inter-relationships of all component factors. The model should also clarify the role of process as content and it must be dynamic. Jewett contended that the model must be open-ended and flexible with the key concepts furnishing some stability. She also stated that the model should provide for wide communication. In other words, the model should have some meaning for those not in the field of physical education. They should be able to interpret it and perhaps make some use of it in other disciplines with various adjustments.

There are three key concepts of human movement which have been widely accepted by many in physical education, and especially those researching the area of curriculum design, conceptual models, movement, and a theoretical framework. These three key concepts are illustrated in Figure 9 which shows the first part of Jewett's mobile model. She states that these concepts are essentially purpose-oriented. Note that the three



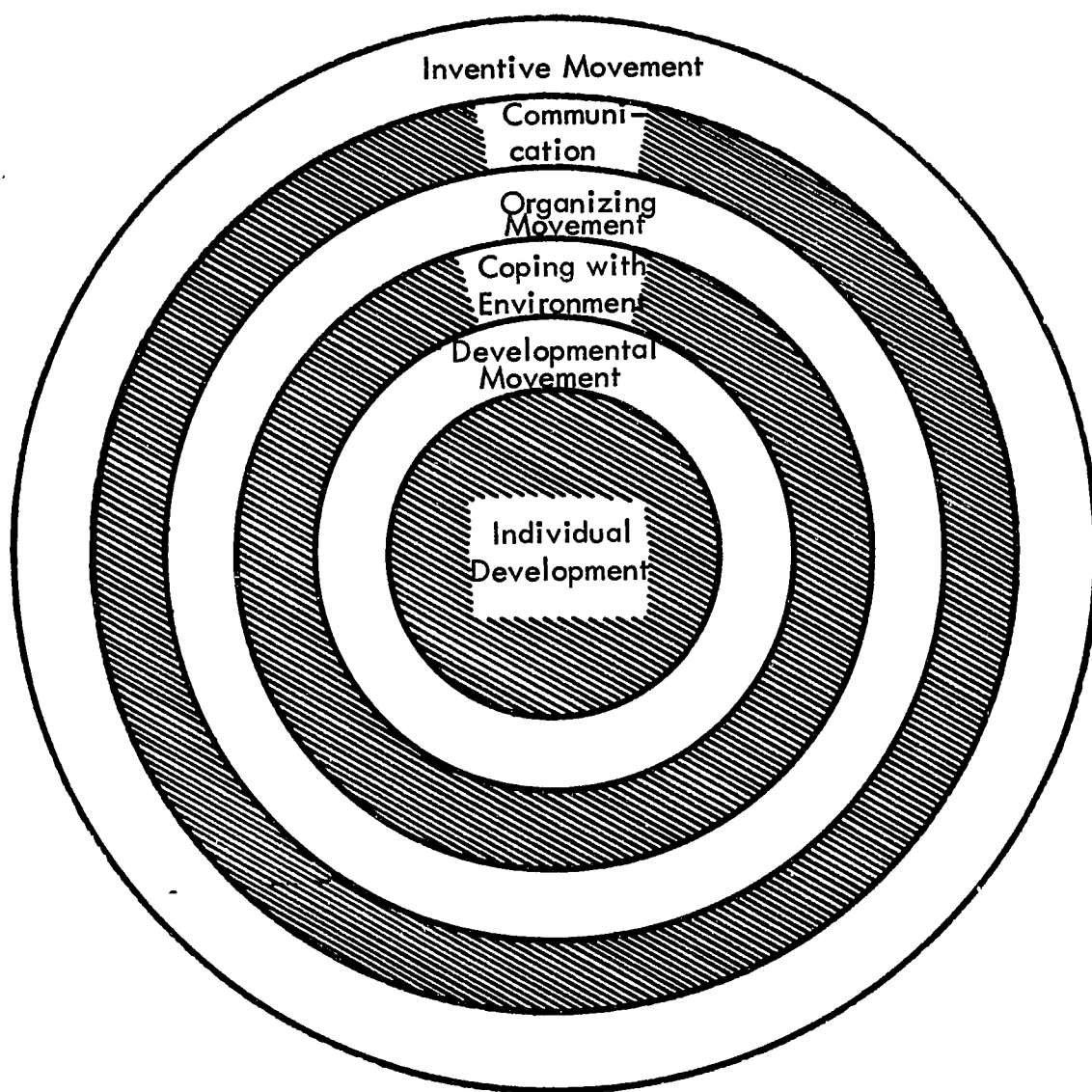


FIGURE 9

JEWETT'S MOBILE MODEL OF THREE KEY CONCEPTS (11:14)

key concepts are described in the shaded areas of the model; individual development, coping with the environment, and communication.

Jewett (11:13) described the second component in the model as a process-oriented justification of movement. She terms these as developmental movement, organizing movement, and inventive movement. They can be identified in Figure 9 on the plain bands of the model. The second component was "developed to emphasize the role of process as physical education curriculum content, to symbolize our unique mode of inquiry, and to describe our special way of looking at phenomena." (11:13)

Jewett described the model as three dimensional. The circular bands can be turned in several ways. For instance, if two adjacent bands were rotated in opposite directions on the vertical axis, the intersections would identify major learning areas. If the band were turned clockwise, it would bring into focus the possible instructional units. (11:15-16). This can be seen in Figure 10.

Jewett made the following recommendations which are relevant to this study:

... we should study, explore and develop the concept approach to curriculum development-- we must face realistically the tasks of defining physical education and of clarifying the structure of organized knowledge-- and we need to continue the search for satisfactory conceptual models to guide curriculum development. (11:17)

It has been with these recommendations in mind that the writer has pursued the development of this paper. It is a search for a satisfactory model for professional preparation, an area of vital importance but one that has received very little attention in terms of model design or conceptual framework approach. The possibilities for this type of research seem limitless at the present time.

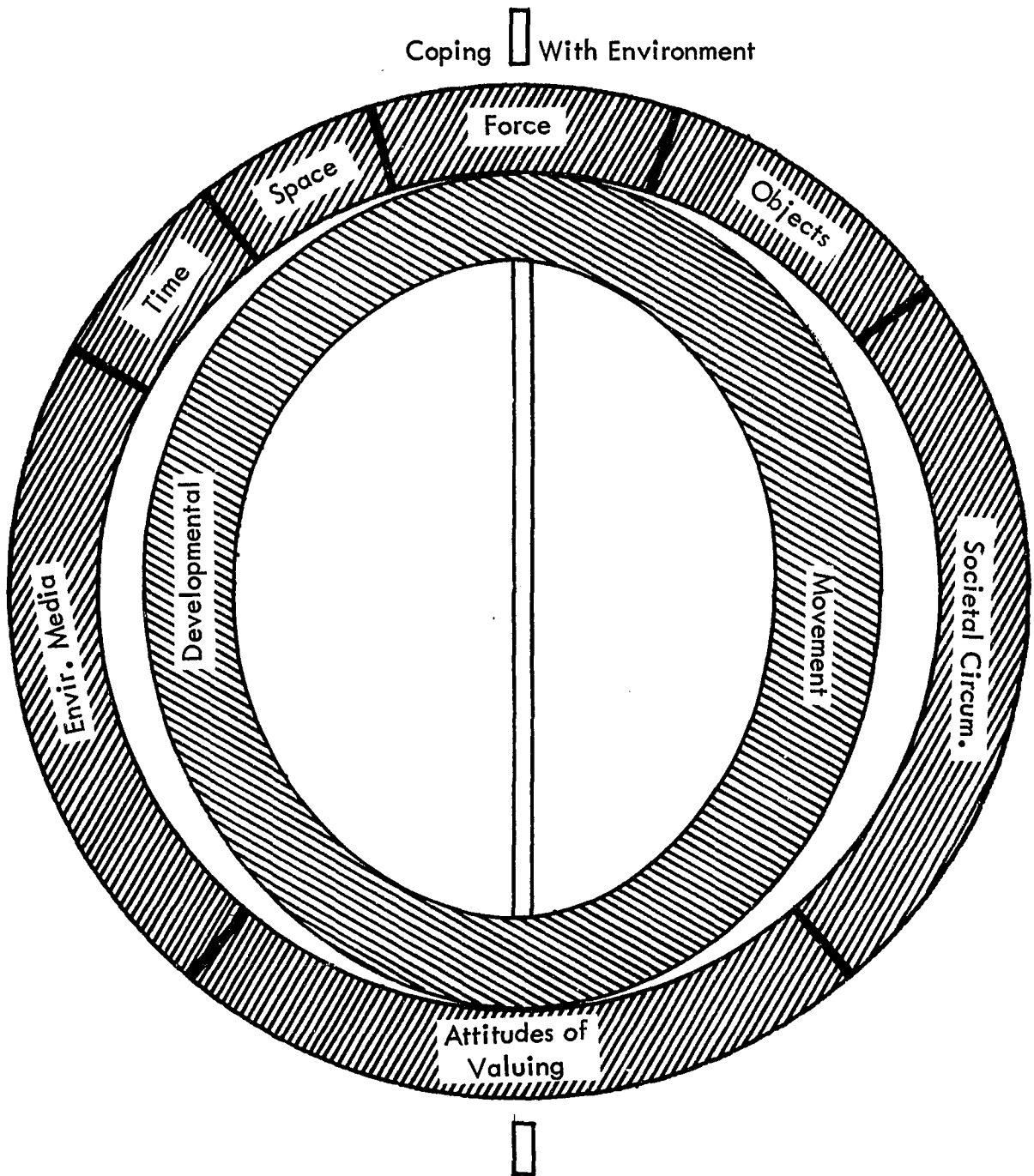


FIGURE 10

JEWETT'S THREE DIMENSIONAL MODEL (11:16)

### Review Of Professional Preparation Curricula In Selected Institutions

In 1965 the writer studied approximately twenty-five different undergraduate programs of professional preparation and has made an effort to keep informed of any new approaches to undergraduate curriculum development since that time. Five undergraduate professional preparation curricula in health and physical education are included in the Appendix as samples of typical programs. It is interesting to note the similarity and the diversity of the courses and the progression of the courses from year to year.

Institutions and departments of health and physical education state that their purpose in education is to help the individual develop to his fullest potential. Most undergraduate professional preparation programs recognize that man is a unified organism, a bio-psycho-socio entity with a complexity of needs, one of which is his need for movement. It seemed apparent in studying the basic philosophy for some of the programs that many curricula were developed with the belief that a student's life becomes richer and fuller if his movement experiences are purposeful; therefore, planned, developmental movement experiences constitute physical education. This particular idea is more prevalent in the thinking of curriculum developers for undergraduate professional preparation today and is evidenced by the inclusion of courses such as fundamentals of human movement, human movement development, movement strategy, analysis of expressive movement, assessment of human movement skills and other such course titles. A further examination of the various curricula might indicate, however, that some institutions do not make provision for such stated purposes.

Even though curriculum is rapidly undergoing change, it is evident from a study

of the sample programs in the Appendix that, basically, undergraduate professional preparation programs include study in the following areas: sports and movement activities, methods, principles, philosophy, history, kinesiology, officiating, organization and administration, measurement and evaluation, and adaptives. Some colleges and universities include elementary school physical education. It seems, however, that many institutions are moving in the direction of an area of specialization in elementary school physical education. Other common course offerings include motor learning, camping, recreation, health methods, physiology of exercise and techniques of coaching. All institutions require a student teaching experience and this is usually noted in the professional course listing.

It is not always known how a curriculum is devised, but the author is not aware that any programs have been developed through a conceptual approach with the possible exception of one. This is not to indicate either that the programs, as they now exist, are not effective or that they do not meet the purposes of the students and of teacher preparation. The writer believes, however, that if an undergraduate professional preparation program design is developed using the conceptual approach, it will meet more fully the needs and objectives of the students. Further, it will identify more clearly the body of knowledge of physical education throughout the preparation program in a fluid and flexible way. Development through the conceptual approach will not allow for rigidity or mere fact learning. It will prepare teachers to use the conceptual approach with their students. This approach is upon the horizon in physical education and already in use in health.

The program at the University of California at Los Angeles was designed around

a conceptual framework of kinesiology. To the writer's knowledge, this program is the only one developed around such a framework. An examination of the UCLA program outlined in the Appendix will show that all of the courses deal with the study of human movement, the body of knowledge of physical education. The staff in health and physical education at UCLA worked for a number of years to develop this curriculum. Because of a firm belief in human movement, the study of it is reflected throughout the curriculum. There was no model developed with the UCLA program, but several different approaches using allied fields are given.

The review of literature and a review of sample undergraduate programs in health and physical education give evidence that little has been done with the conceptual approach in physical education in general, and nothing has been done in the area of professional preparation. There seems, however, to be some activity just beginning in this area. This is especially true in health. For example, Juho Korhonen, (134) from the University of Southern California, sent out a questionnaire in January, 1969 entitled "Concepts of School Health Programs Recommended for Professional Preparation in Health Education in the United States: Implications for Higher Education in Finland." The questionnaire consisted of concepts which had been abstracted from ten selected textbooks written for secondary school teachers. Mr. Korhonen was requesting that a jury select those concepts of the school health program which should be recommended for inclusion in professional preparation programs for secondary school health education teachers. The results of Mr. Korhonen's work are not known as yet but it is significant to recognize some interest and research in this particular area.

The writer of this study is aware that her ideas of a conceptual approach and

model for the undergraduate professional preparation program in health and physical education had to be based on personal philosophy and conviction in addition to any supporting literature which is very limited at this time. Nevertheless, it seemed important to propose a program design, not as a final statement but as a pattern for designing a curriculum.

## CHAPTER IV

### THE RATIONALE FOR A PHYSICAL EDUCATION CURRICULUM DESIGN: AN IDEA IN LEARNING

A question which immediately confronts the person involved in curriculum design is "What evidence, and what rationale can be given for such a design?" Since physical education is an integral part of education, some rationale from the general area of education will be stipulated first.

Platt (26) posed a searching question about education: what kind of education will produce, in all men, the greatest inventiveness, the greatest willingness to undertake intellectual adventure, the greatest capacity to combat the commonplace and repetitive. Booth (26) in essence gave the answer stating "the knowledge most worth having." What, then, is the knowledge most worth having? Platt made the following response:

The knowledge most worth having for everyone will be the knowledge of how to be creatively different from everyone else, specialized in one's own unique direction; but the knowledge allowing for maximum diversity will be the same kind of knowledge needed by all. (26:x)

Curriculum developers should examine closely these questions relative to what knowledge is most worth having and then make every effort to devise curricula which will educate individuals to be creatively different. Perhaps the solution involves a new frame of reference for dealing with students in a more individualized manner. The changing civilization is creating human tasks which require different



kinds of learning, new ways of doing things, new kinds of skills, and new ways of approaching curriculum in the school, each of which will vary with each student.

La Rochefoucauld expressed recognized individual differences thus:

God has put as many differing talents in man as trees in nature; and each talent, like each tree, has its own special character and aspect.... The finest pear tree in the world cannot produce the most ordinary apple, and the most splendid talent cannot duplicate the effect of the homeliest skill. (26:109)

Innovations in individualizing instruction and in initiating new approaches to curriculum have proved worthwhile in pilot schools but have not spread as they might.

Moore, a sociologist, made the following comment:

Nothing is less practical than a practical education if the result is a trained incapacity for adaptation to change, or continuous learning, and for some degree of creativity. The school will fulfill its function as an agency of developmental change only if it prepares its graduates for a somewhat uncertain world, where no niche is absolutely secure and few niches even hold their shape well. (56:85)

The character of the schools remains basically unchanged from year to year mainly because of faith in time-honored methods and because of society's belief about educating young people. Criticism of schools comes easily and, regardless of changes that are made, people will still find fault with education. However, if educators continue to endorse that which prevents self-renewal they are addressing themselves to more criticism. Rubin made this point very clear:

Significant change is not likely to occur... until we begin to doubt our fundamental notions about the purpose and process of education... a reexamination of this sort is not likely until our method becomes so unstable and inadequate that we no longer can survive it. If however, we have sufficient courage and imagination, we could undertake the needed reform before total crisis is upon us. (22:7)

Goodlad pointed out that needed changes are appearing at an accelerating

rate in educational reform. Even though education constantly receives criticism, educators, such as Goodlad and others, enable people to focus their attention on the changes and innovations already underway.

Many people are now beginning to question parts of the rationale for educational change. They are beginning to ask if knowledge should be theoretically sequenced and if objectives should be put through a philosophical screen. Goodlad and Tyler advocated many sound ideas relative to the rationale of a theoretical model. They believe, as do others, that the most fruitful route to solve educational problems would be through the development of conceptual models built on sound principles. (67) Such a model might help explain the interrelatedness of phenomena and identify the components that hold the discipline together. Tyler suggested that a conceptual model is used to systematize or order the existing knowledge. The method of reform in curriculum development and in instruction needs to be more systematic and comprehensive as it is approached in a rational manner.

A consideration of the objectives of education is of utmost importance. Actually, education is planned around objectives ranging from one large major purpose for all education down to the specific single objective of one lesson. This is comparable to a conceptual model denoting one general concept of the broad area of study down to the specific concepts for individual students that are basic to everyday learning and behavior.

It is important, in any study relating to teaching and learning, to be cognizant of the major objective of education which is to enable students to make wise choices and to cause them to strive to manifest in their lives the best qualities of the culture. Wise choices depend on having clear and valid concepts of the physical forces and

human tendencies that affect and control lives. Herein lies the challenge of educators as they endeavor to teach concepts and to construct curricula from a conceptual point of view. Actually the curriculum using this approach can lead to these attainments by selecting the essential concepts with their related skills, and teaching them to students in an orderly and learnable form. (84) Woodring reinforced the above thoughts by stating his opinion on the major objective of education: "In a society of free men, the proper aim of education is to prepare the individual to make wise decisions. All else is contributory." (81:111)

While concepts are forming, whether through experience or otherwise, the student is also learning what value each of the objects and forces has for him. He experiences a sense of value about each concept and this determines how he feels about it. In establishing a curriculum based on the conceptual approach, it is important for the students to know the concepts upon which the curriculum is based; they should be apparent throughout the curriculum.

Dewey said,

Education, if it is really education, should send (youth) forth with some unified sense of the kind of world in which they live, the direction in which it is moving, and the part they have to play in it. The schools should have given them some sort of intellectual and moral key to their contemporary world.... As for method, the prime need of every person at present is a capacity to think, the power to see problems, to relate facts to them, to use and enjoy ideas. (39:24)

Thus education still faces the challenge as presented by Dewey many years ago; yet, the process of education stands on the brink of the most exciting and rapidly changing era in its long history.

Big business has become interested in industrializing education and big

government is vastly increasing its expenditures and control. But, in spite of all this, the preparation of teachers has not changed significantly since the introduction of the normal school. (112) Unless the opportunity to control the educational enterprise is seized it will slip even further from reach and teachers will find themselves "tending the shop" while the students learn from instructional environments prepared by the new profession of educational designers prepared and trained outside of the field of education." (112:20)

Crutchfield wrote that society can no longer afford the kind of formalized education which takes the child into the future with his gaze fixed steadfastly on the past. (17) The challenge is evident to curriculum designers, and the rationale of educational purposes and objectives seems to be clear for the formation of a curriculum developed from the conceptual approach.

There are four areas needing emphasis in curriculum reform today pointed out in Rational Planning In Curriculum and Instruction:

1. there should be increased emphasis on philosophy as the common denominator of all programs and activities.
2. there should be objectives consistent with philosophy.
3. there should be a recognition that a strategy for change logically and morally follows the objectives.
4. there should be an overall design that includes all of the components and their relationship. (67:55)

These critical areas have been carefully considered in the development of the curriculum design of this study. They will be noted in the remainder of this chapter through a discussion of the scientific-philosophical foundations; the student, including

student needs, facts concerning human development, developmental tasks, societal factors, and possible purposes of students; objectives of the physical education program and the curriculum design; and, the body of knowledge.

### Scientific-Philosophical Foundations

All curricula must have certain foundations on which to build a design or model. In the field of health and physical education, the scientific-philosophical foundations are basic and essential. Although discussed as separate topics for clarity, the student, the objectives, and the body of knowledge are interwoven and interrelated within the overall area of the scientific-philosophical foundations.

Kendrick (106) gave two points of view relative to the rationale for physical education in a democratic society. He related the basis for physical education to two basic educational viewpoints:

#### Education

1. equalitarian-- it is recognized that individual differences exist among students. Education is concerned with the development of potentialities of students. Rather than emphasizing differences, similarities of individuals are emphasized.
2. freedom-- provision must be made for individuals to progress at their own rates of speed. Brubacker states that it is "...undemocratic, to prevent a child who is strong in mind or body from accomplishing what nature has endowed him with power to do." (106:136)

#### Physical Education

1. requirement-- required standards of physical education correlate to the equalitarian point of view. Justification of the required standards of knowledge and skill is given due to the fact that the standards are based on scientific and philosophical experimentation according to the needs of the students.
2. elective-- in physical education, a wider variety of activities must be offered to provide for individual interests and needs. The activities provided must have a scientific basis for meeting basic needs of individuals

Thus, in developing a curriculum design for future teachers, it is important to provide an equal balance of required courses as well as elective courses to accommodate both the scientific and philosophical foundations.

There are some foundational facts which should be stated in general to understand better the direction of the program design. These statements have direct bearing for the individual student and illustrate the scientific-philosophical foundations of concern in the design.

-- Each individual is a socio-psycho-somatic unity. (124)

-- The individual's perception of self should be one of success and feelings of worth.

-- The individual perceives that which he selects as having meaning to him.

-- Learning is a matter not of facts, but of the meaning of such facts to the individual. (126)

-- The individual is the product of the possibilities within himself and the experiences which have occurred.

-- Impulses for movement are relatively permanent.

-- The interaction between the organism and the environment is continual.

(79:185)

-- The environment changes and the individual must adjust to reach his goals.

-- Learning produces changes in the individual, and motivation is a driving force for action.

-- The beliefs of individuals regarding human relations are enveloped in meaningful movements.

-- Living is a process of experiencing with people and things through the interactive process. (126:1)

-- Movement is central in living and learning and relating; in establishing self-identity; self-values; in self-actualization; in becoming. (126:1)

Ideas will continue to change, needs will be replaced with others, and purposes will become enlarged. Foundations are essential for building. Even though only a few have been mentioned specifically, others are interwoven into the full program design.

### The Student

The individual and society are interacting and the developmental characteristics of the individual are many. The developmental process might be described by relating student needs, facts concerning human development and the developmental tasks, societal factors, possible purposes of students and the experiences related to those purposes.

#### Needs of College Students

Most college age students have some very similar and common needs. These needs are not necessarily unique to physical education majors per se, but they are general needs which the physical education major student experiences also:

1. vigorous activity
2. education for courtship, marriage, family relationships, and community participation
3. skills for survival purposes
4. better understanding and skills in human relations
5. increased opportunity for community participation
6. guidance and counseling

7. more and better general education
8. ability to accept responsibility-- self realization
9. a strong sense of values
10. strength, good health, stamina, courage, and confidence (31)

#### Facts Concerning Human Development

The college age student has somewhat different needs and problems from his own earlier days. Practically all of them have more independence and they often develop feelings of uncertainty and insecurity. Their physical growth, for the most part, is complete. Some of the men will continue to grow in height, but both men and women have completed sexual maturity. They are no longer awkward with their movements; they look more "pulled together" physically. This age group is becoming increasingly aware of themselves as individuals who possess strengths and weaknesses. Some college age students have considerable difficulty appraising themselves, sometimes underrating or over-emphasizing their abilities. They have usually won independence from the parents but many do not know how to handle it properly. For some college students, courtship, marriage, and parenthood come during this time. For others, this is a time of preparation for selecting a partner for life, and giving thought and consideration to their future vocation. Most are ready to make decisions about their vocation although some go through a period of uncertainty. At times there is a tremendous amount of change in vocational goals during the college years. The bulk of their leisure time is spent in reading, listening to music, participating in sports, going to the movies, supporting a cause, or socializing. Usually their leisure time is



spent in association with members of the opposite sex. By late adolescence many young people have begun to develop a value system of their own. They know they are headed toward adult responsibilities and seek to find their place in an adult world. For the most part, they are serious and questioning. They are critical of education that seems to them to be meaningless. They seek a purpose in all they do.

### Developmental Tasks of Students

The developmental-task concept is of great importance in curriculum design and educational philosophy. Havighurst, who first introduced the concept of developmental tasks, gave the following definition:

... a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with other tasks. (47:2)

Many tasks are related to bio-physical development of the individual, and others are set by society. Different developmental tasks arise at different levels of development. In designing a curriculum for the undergraduate professional preparation of college women, the developmental tasks should provide a sound basis for building such a program. A list of the developmental tasks has to be fairly general for the purposes of this particular design and approach and will not be all inclusive. The developmental tasks serve as guides in curriculum development and not as requirements. The physical education curricula should recognize the theory of developmental tasks with all its applications. Following are some of the developmental tasks considered in this study:

1. Acquiring self confidence and a system of values by which to live with self and others.

2. Achieving independence from parents and accepting a mature responsible role as a person.
  3. Achieving adult social and economic status.
  4. Accepting and managing a changing body and learning one's psycho-biological-social-sex role.
  5. Learning new relationships to age mates of both sexes and to adults.
- Responsible relationships required in a Democratic society. (31:77)

### Societal Factors

The student needs, developmental characteristics, and tasks, all give direction for the student to form his particular purposes and for the teacher to determine objectives and to design the program for the student. Learning starts with student purposes, and particular societal factors on all levels should provide conditions for best learning in a democratic society. Maintaining the best traditions and continued refining of the democratic way of life in the United States depend on educational development for everyone to his highest level of attainment.

Margaret Mead said,

... the change in the rate of change is so rapid that adjustment cannot be left to the next generation, adults must-- not once, but continually-- take in, adjust to, use, and make innovations in a steady stream of discovery. (111:16)

Adults must consider the student as an individual and, therefore, must make all the adjustments and innovations possible in educational programs now.

The curriculum should be built to change with new socio-economic trends and forces. As the society grows, the responsibility and burden on the school becomes greater. It is well to consider the following societal factors:

1. that while interested in the future, individuals must try to make the most of the present
2. that facts and skills are important because they contribute to the total development of the individual

3. that emphasis is on learning as a whole-- the emphasis is on the unity of man
4. that aims, materials, and techniques are flexible
5. that man is a unique individual
6. that the effect of automation and space exploration is considerable
7. that a basic need in man is to achieve self-value and self-identity
8. that more free time for individuals is evident
9. that education will occur in the home, school, and community
10. that society will move from a work ethic to a leisure ethic (124:126,127)

These factors seem either to be present now or projected as future factors for individual situations, and perhaps for the world. It is not known yet exactly how to accommodate societal factors in space but this probably will be the next step in the educational process -- to determine the needs, interests, and capabilities of man in space and the implications of this for education.

How shall teachers for the future be prepared? This is the question today in undergraduate professional preparation. All the societal factors seem to indicate that concepts and theories must be used to explain and interpret. The individual must be stimulated in ways of inquiry that will make him increasingly self-sufficient.

#### Possible Purposes of Students

The purpose of the undergraduate professional student should be to become a teacher, and an effective one, in the society of tomorrow. These might be some of the student purposes in the undergraduate professional preparation program:

- to develop skills needed for adult and individual interests
- to develop the knowledges of human movement needed for self-selected forms of recreation and for teaching
- to maintain personal well-being throughout life

-- to learn about the nature, characteristics, and conditions of skill learning and successful performance

-- to learn about the needs, interests, capabilities, growth and development of the individual and their effect upon human movement

-- to develop self-identity, a positive self-image and self-value

-- to develop new social understandings and a means of communication with others

-- to learn democratic behavior in order to teach in a democratic society and understand democratic relationships

-- "to learn movement patterns and design for recreation and the enjoyment of free time, to learn patterns of play" (28:145)

-- to develop teaching competencies in order to help students improve in skill and performance.

The professional student's genuine love of physical education and the profession must be accommodated in the curriculum design. This is a special need of the professional student that must be considered. An undergraduate professional student (121) developed the diagram shown in Figure 11 to illustrate a view of her purposes in the undergraduate program; the primary purpose was the understanding of self and basic concepts. Undergraduate students today are thinking more in conceptual terms and desire a conceptual approach in most of their endeavors. The students find that concept learning has value to them that rote learning does not satisfy.

#### Experiences Related to Student Purpose

Many experiences and learning opportunities should be provided for professional

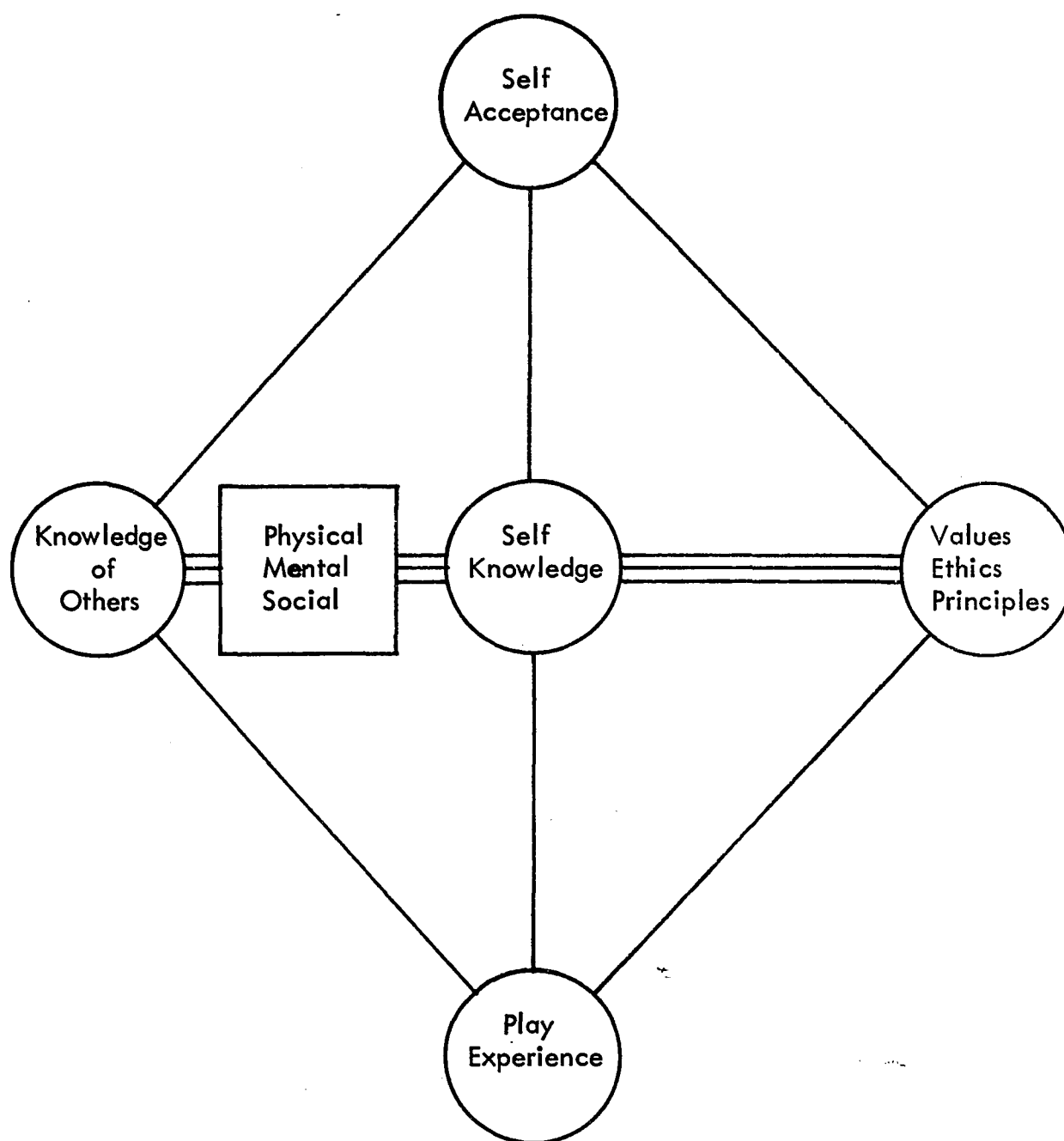


FIGURE 11

A CONCEPT OF AN UNDERGRADUATE PROGRAM (121)

students to assist in meeting their purposes and the objectives of the program. All of the experiences should be provided students on the basis of need. The experiences listed below are correlated with the learning opportunities and competencies to be discussed in Chapter V:

1. experiences dealing with the basic patterns of human movement
2. experiences dealing with the organization of body structures and functions and the ways these are utilized in the learning process
3. experiences involving observation and participation of children in the school situation
4. experiences relating conditions for healthy growth and development -- possibly through a health course or growth and development course
5. experimental movement for experimental development
6. "all qualities of expression should be experienced for the fullest development of the individual." (28:143)
7. opportunities to study and analyze the unique expressive behavior of man
8. opportunities for the development of interests and skills to be fulfilled now as preparation for later life
9. experiences in activities which make for a healthy, fully functioning individual and for a "good society"
10. experiences provided for spectator understandings, beginning performance, intermediate performance, advanced performance, public performance, intramural and intercollegiate competition
11. practical experiences in teaching under capable supervision

## 12. experiences relating to methodology of teaching

### Objectives for the Physical Education Program

When consideration has been given to the foundational facts, the student needs, purposes and possible experiences, the curriculum designer must consider objectives for the program in general as well as more specific objectives related to the particular curriculum design. Brown and Cassidy (28:107-108) stated some general objectives of the physical education program. In the opinion of the writer, it might be well to be aware of some general objectives such as providing opportunities for:

- understanding the effect of movement on growth and development.
- the individual to learn movement patterns for recreation and the enjoyment of leisure time.
- the individual to develop and express ideas of feeling through motor patterns.
- the individual to develop social understanding, means of communication with others and self-realization.
- the development of understandings, knowledge and skills.
- the students to learn democratic behavior and the ability to think critically through participation in movement experiences.

Looking toward the future in teacher preparation, there is need to look up and consider other factors as mentioned by Cassidy:

We must,

1. Help each individual to establish self-identity  
self-value  
a positive self-image.
2. Make positive the concept of individual difference.

3. Help her to identify problems, to find facts, and to be able to use these in problem situations (how to think).
4. Provide for self knowledge re: stress  
tension  
fatigue  
rest, etc.
5. Help individuals to change from a work ethic to a leisure ethic and provide rich and varied resources for self realization. (128)

One moves from the general to the more specific objectives in considering curriculum development. Therefore, the general and overall objectives of physical education have been considered before the more specific objectives for this particular curriculum design are identified.

#### Objectives for This Curriculum Design

The following objectives have been used in determining the curriculum design as described in this paper:

1. To give students an understanding of and experience in the body of knowledge of the physical education program.
2. To give the students the knowledge, skill, and confidence she needs to begin her career as a teacher.
3. To insure carefully planned and supervised experiences in the field which are needed to study and understand the teaching process, the behavior of children, and the functions of the school and other agencies.
4. To increase the perceptions, sensitivities, insights, and feelings of responsibility of the student.
5. To lead the student beyond the acquiring of facts to an understanding and application of basic principles and concepts.



6. To develop broadly educated persons to function as members of a changing society.

7. To maintain and improve professional standards.

8. To develop initial security that creates enthusiasm for teaching.

9. To enable students to acquire mastery of the knowledges and skills unique to his field such as:

- understanding history, philosophy, and basic purposes
- understanding relationships of the human body as it relates to effective living
- to understand a variety of methods and techniques suitable for teaching
- to understand and know how to use the appropriate evaluative technique
- to understand the value of research and its implications
- to understand the profession and the obligations one has to the profession

(#9 taken from: 8)

### The Body of Knowledge

Henry made this clarifying statement:

An academic discipline is an organized body of knowledge collectively embraced in a formal course of learning. The acquisition of such knowledge is assumed to be an adequate and worthy objective as such, without any demonstration or requirement of practical application. The content is theoretical and scholarly as distinguished from technical and professional. (101:32)

He stated that there is an increasing need for the organization and study of the academic discipline called physical education.

Abernathy (86), discussing persistent themes in physical education, indicated that physical educators must continue to base program planning on sound health concepts and that the contribution of physical activity to growth and development must continue to be recognized. She suggested that research in physical education must

be directed toward basic questions dealing with the nature and meaning of human movement, and toward identification of unique concepts and knowledges. Abernathy gave six areas of emphasis that have contributed to the body of knowledge of human movement: empirical; methodological; kinesiological; human behavior and action systems; motor learning, perception, and motivation; and the mathematical approach to the development of accurate models.

Brown and Cassidy made the following statement relative to the body of knowledge:

In the area of knowledge called physical education, over a period of years, and more recently at an accelerated rate, examination of what moving means in human development has resulted in new concepts of movement meanings more complex and central than have been expressed in a curriculum of exercise, games, sports, and dance. Because of acceptance in the field of physical education of these emerging concepts, the body of knowledge of this field is described as the art and science of human movement. (9:205)

The development of a sound conceptual scheme for physical education is an exciting possibility although a complicated task whether it be for grades K-12 or for undergraduate professional preparation. From the literature of the past ten years, there is increasing agreement that the phenomenon of human movement must be the focal point in physical education.

There are certain key elements that characterize physical education and human movement as the body of knowledge. Such beliefs provided the foundation for this conceptual approach:

"Man moves: to survive  
to discover and understand his environment  
to control and adjust to his environment  
to communicate" (50:61)

The individual is a socio-psycho-somatic unity. (124)

"A physical education program built upon a sound foundation of knowledge about human movement could have much greater potential for the realization of the goals of education." (87:7)

"The field of knowledge of physical education with art and science of movement goes all the way from the toddling baby to the art form." (28:8)

Some physical educators believe that

- (1) movement is the tool with which they accomplish their broad objective
- (2) because they deal with movement which is basic to life itself, they have the greatest opportunity of any area in education
- (3) the study of movement is extremely broad and there are many avenues by which it can be approached. (89:23)

Man is in constant motion and his movement is both expressive and communicative. Thought, learning, and observable forms of body behavior are bound together within a common framework. Every element of man's life is integrated in this framework. Some in the profession are advocating that this framework for physical education should, in truth, be the body of knowledge. There are proponents of the idea that the body of knowledge is human movement.

Cassidy gave the following statement as the developmental task of physical education:

The primary job of the physical education teacher as differentiated from other teachers in the school is to educate for an understanding of the laws of its expression and use, and for an appreciation of the value of achieving and maintaining a responsive, well-directed, mature responsible instrument for living democratically both with oneself and with others. (31:132)

The writer has accepted basically the developmental task of physical education as stated by Cassidy and has proceeded on the premise that our body of knowl-

edge is focused on human movement and the various components of it. Accepting this idea as the body of knowledge does not ignore the contribution, through movement, to the mental, social, moral, and physical needs and capacities of the individual. One must also be concerned with knowledges, skills, behavior, attitudes, and understandings. Thus, all of the components must be within the framework of the model for the undergraduate preparation of teachers.

Students can translate ideas into more objective forms by coordinating movements in appropriate ways. Perhaps this is one of the features unique to the field of physical education. The purpose, through the body of knowledge, is to enable man to acquire idea-directed skills. The individual, to be a fully integrated person, must organize and express his understanding of himself and his world. With these ideas in mind, a theoretical framework was desired which would illustrate both a structural and functional curriculum. The conceptual approach seemed to be the best plan with which to work and experiment. This particular scheme seemed to be clear, concise, and understandable, yet meeting all the elements of a model with a hierarchical arrangement.

Cassidy and Brown defined design in this manner: "Design is being used to describe artistic invention in organizing program elements." (28:179) The word design denotes several things such as creativity, program elements, planning, sketches, and outcomes. Therefore, in attempting to express the design in these terms, there is no indication of a static or rigid program. Even though the aims in physical education are basic to education, the basic concern of human movement for the individual cannot be forgotten.

Lockhart said that physical education is concerned with the systematic development, analysis, interpretation, and practice of organized gross human motion. (110) All of these definitions or statements give support to the fact that the whole individual (mental, physical, social, spiritual) is being taught and that there is concern for attitudes, knowledges, skills, and behavior.

The logic for pursuing the development of a curriculum design for professional preparation, using the idea of human movement as the body of knowledge, has been described. The facts that physical education is an integral part of education, that it has scientific-philosophical foundations, that the student is the point of focus, and that there are objectives of physical education and the program design all provide the rationale for the program design. The program design suggests a process-- one in which the product, the student, will prepare to teach using concept as a basis for action.

## CHAPTER V

### THE MODEL--- A THEORETICAL FRAMEWORK

#### Program Design

Some general premise must be the foundation upon which designs are built.

The following premise was printed by the National Commission on Teacher Education and Professional Standards in a position paper relative to teaching and has become the accepted premise for this program design:

Teaching is a profession to the degree that its members are professional.

A person who qualifies as a professional in any field:

- a. Is a liberally educated person.
- b. Possesses a body of specialized skills and knowledges essential to the performance of his job.
- c. Makes rational judgments and acts accordingly: accepts responsibility for the consequences of his judgments and actions.
- d. Believes in his service to society.
- e. Seeks new knowledge and skill in order to improve his practice. (64:2)

Essentially, the focal point in professional preparation is upon the individual preparing to become a teacher. Indeed, it is the desire of the preparing institutions to graduate persons qualifying as professionals. Curricula are reviewed and revised with this purpose in mind. Designing a program to prepare teachers is an on-going process constantly being evaluated and appraised to achieve the best end results. The writer has chosen to experiment with a model depicting the conceptual approach to a curriculum design. There are many elements in this structure that will need more research, evaluation, and experimentation. Details within the approach will need to

be worked out by the various institutions through group appraisal, analysis, and investigation.

The purpose of this chapter is to develop the concepts within the model, to describe the component parts of the model, and to explain the theoretical part of the program design as specified by the model itself. This design has been planned around human movement as the unique task of physical education as set forth by Cassidy (128). Incorporated in the concepts in the model are the ideas of Brown (122), Cassidy (123), Abernathy (87), Allenbaugh (88), Jewett (11), and other authorities in physical education pursuing like endeavors.

The development of a conceptual approach for physical education cannot be a fragmentary process. The unity of physical education, its integrated nature, the interrelatedness of all aspects of the program, the dimensions of an individual, and the domains of learning are reflected in the components of the model. Designing new frameworks, new approaches, and new dimensions in physical education can be helpful in identifying and structuring the most significant and unique ideas in the profession. In addition, there are certain educational values and skills such as critical thinking, student involvement and discovery, concern for value development, and conceptual thinking and learning, that can be highlighted with a new and perhaps different approach. The suggested framework in this paper should be used as a guide for teachers in selecting learning opportunities and in developing content for courses. The framework allows for adaptability, flexibility, and permanence.

### The Model

Figure 12 shows the model in its entirety as it has been designed in artistic form. The model was designed in its physical form before a description of its meaning was attempted. The physical model was constructed using small flexible wire for the pendulum, heavier copper wire for the spirals, and wood for the tripod. The use of the different media had no significance to the meaning of the theoretical model in the curriculum design. The media were selected for mechanical purposes to achieve the desired model. A cross section of the model is shown in Figure 13 so one might see the beginning of the spirals and note the interrelatedness of the three tripod poles as they engulf all components within their realm. The various parts of the entire model are designated in this figure. The totality of the theoretical framework denoting the various concepts is also shown in Figure 13.

### The Concept

Woodruff's definition of concept has been used for clarity:

A concept is a relatively complete and meaningful idea in the mind of a person. It is an understanding of something. It is his own subjective product of his way of making meaning of things he has seen or otherwise perceived in his experience. (142:5)

Human movement is basic to the development of the fully functioning individual and is the basic concept of this model. Brown (122) defined human movement in physical education as the study of relationships between man and his environment in movement. Brown and Cassidy (28) stated that human movement is the change in position of man in time-space as a result of his own energy system interacting with an environment. It seems appropriate then to re-state that human movement is the



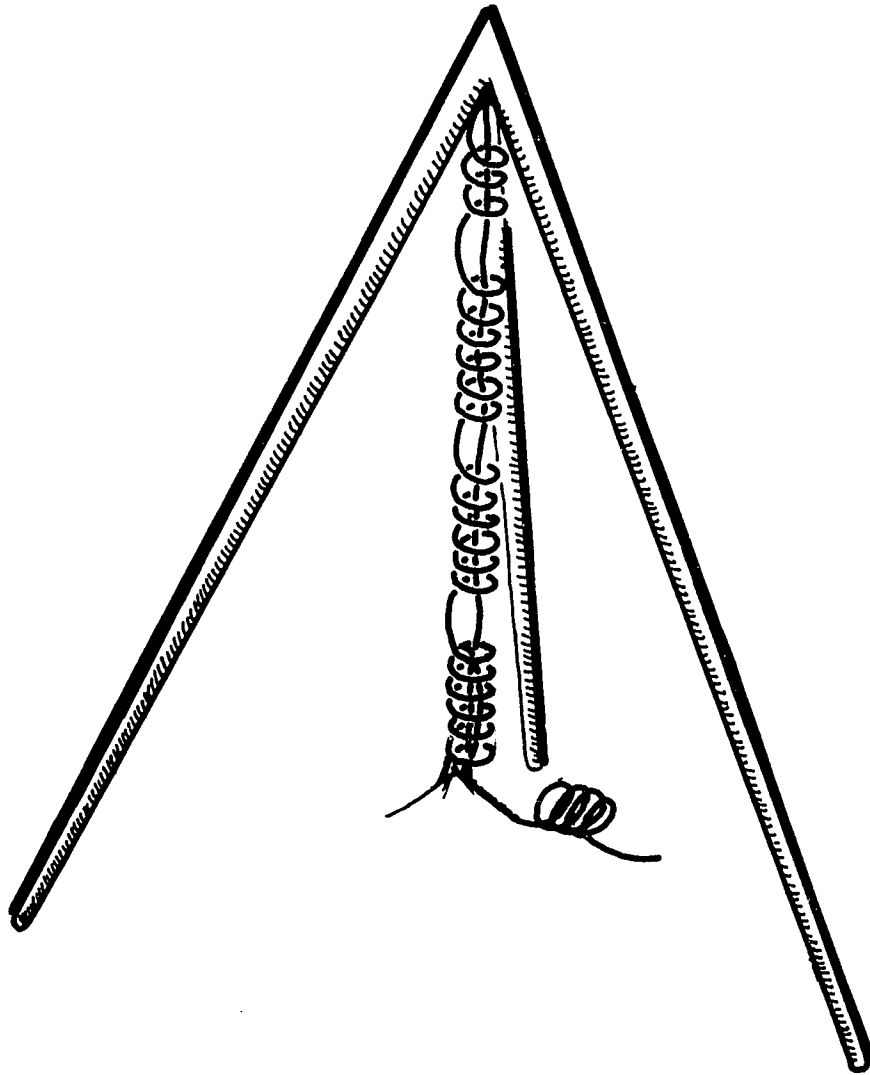


FIGURE 12

A MODEL OF THE UNDERGRADUATE PROFESSIONAL  
PREPARATION PROGRAM USING THE  
CONCEPTUAL APPROACH

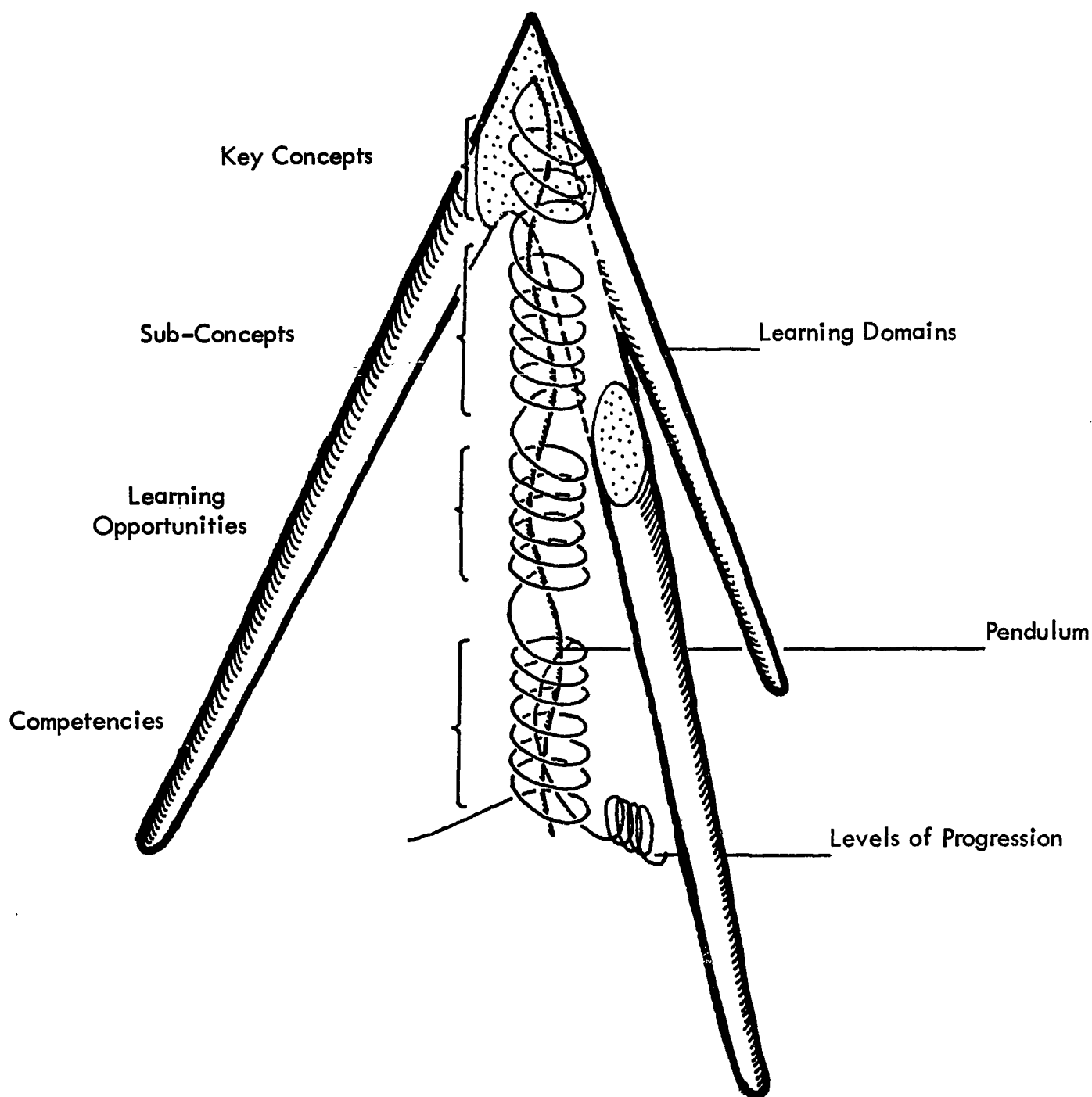


FIGURE 13

LABELED CROSS-SECTIONAL VIEW OF THE MODEL

foundation of physical education in all aspects and in all program designs. It is the complete and meaningful idea behind all that is attempted in the profession. Whether it be in theoretical terms or in activity oriented phases of the program, it is the basic understanding that an individual develops about physical education. An individual can make meaning of human movement as he perceives it through games, sports, officiating, and in theory classes or experiences.

Because man always moves, teachers of physical education must have a basic understanding of why and how man moves in order to teach more effectively. Throughout a program design, whether it be for children on the elementary level or for students in teacher preparation, movement should be the concept basic to all planning, organizing, and teaching. The pendulum shown in Figure 13 represents the concept of movement. The pendulum extends from the top of the model to the bottom and is located in the middle of the spirals. Since the model is three dimensional, the pendulum can be seen from all angles and should show movement throughout all aspects of the model. The continuously moving pendulum can touch and, indeed, can influence every aspect of the program design. It is placed in the center of the spirals to indicate that it permeates throughout all facets. The pendulum hangs free to move and it curves variously to indicate a continuous flow of movement. From every vantage point of the model, the same significance is depicted by the pendulum.

In addition to the pendulum being free moving, it is four dimensional as shown in Figure 14. A fully functioning individual is four dimensional because each person has a social, mental, physical, and spiritual existence. The School Health Education Study (73) indicated three dimensions of a person: the social, physical,

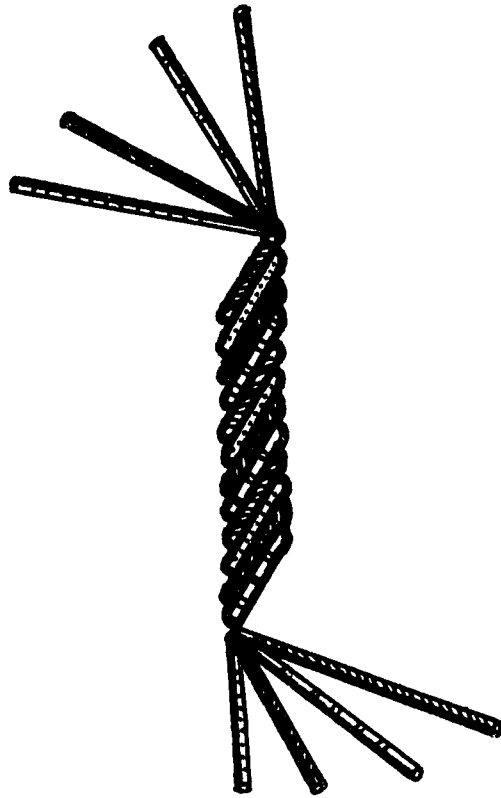


FIGURE 14

A SECTION OF THE PENDULUM SHOWING  
THE FOUR DIMENSIONS OF A PERSON

and mental. A study by Galloway (131) showed that physical education contributes to some extent to the spiritual dimension of an individual. This writer acknowledges four dimensions of a person and believes that each dimension is important in the development of a self-actualizing person. The four dimensions of an individual are represented in the model by four interwoven wires comprising the pendulum. The wires shown in Figure 14 are different in terms of color or design, but this is not significant in terms of the four dimensions of the person. The four dimensions are of equal importance; they are shown to be different in Figure 14 only for purposes of artistic differentiation and schematic drawing. The pendulum, representative of human movement and the four dimensional person, flows through, between, within, and among all other elements. The individual, moving and four dimensional, is of foremost importance in the model and the curriculum design.

Drew said students, to become self-actualizing persons, must

- select areas of learning or problems which are significant to them
- learn to think creatively and flexibly
- learn to generalize from data and to group ideas in meaningful clusters, if they are to solve problems
- be taught to generate models and theories to explain phenomena
- learn ways to test hypothesis and make critical judgments. (18:105)

The aim of this curriculum design is to contribute to the social, mental, physical, and moral development of future teachers through guided movement experiences. It is also the purpose of such a curriculum design in professional preparation to help each future teacher become a self-actualizing person.

### Key Concepts

The top three spirals in the model, seen in Figure 15, begin the continuous,

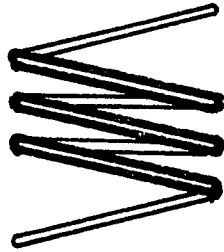


FIGURE 15  
SPIRAL REPRESENTATION OF THE  
THREE KEY CONCEPTS

flowing progression of the model which symbolizes the desired curriculum design. The top three spirals represent the key concepts which are the unifying threads of the curriculum that characterize the processes underlying physical education. (73) The key concepts are derived from the concept of physical education which has been identified as human movement. They represent basic fundamental beliefs of the profession and truths which affect every individual.

Brown (122) stated that physical education is centered in the development of three key concepts:

1. Man Develops Through Movement
2. Man Copes With His Environment Through Movement
3. Man Expresses and Communicates Through Non-Verbal Movement

Brown's key concepts have been accepted and placed at the top level in the hierarchy signifying that there should be little or no change. The elements which comprise the higher levels of the hierarchy should be representative of the more permanent aspects of the curriculum design. These concepts represent the stability of fundamental beliefs about physical education and undergird all of professional preparation.

The sub-concepts and learning opportunities contribute to the development of the key concepts as will be noted later. Brown elaborated briefly on each concept as follows:

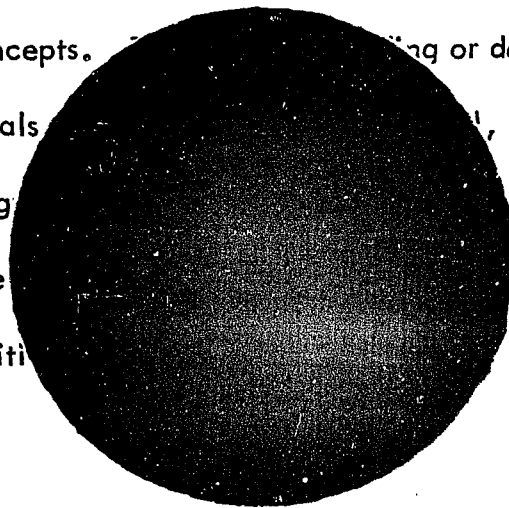
Concept 1 -- moving is central in the development of man. Man's development is changed through his movement; in turn, his development changes his movement. (122:3)

The understanding of this concept seems imperative to all teachers of physical education including the teacher in training.

Concept 2-- man's movement is changed and/or developed through his coping with his environment and, in turn, the environment is changed or developed... (122:5)

Concept 3-- human movement is non-verbal expression and communication. (122:7)

"The three key concepts are basic to all human behavior and are therefore central to student purposing" stated Brown (122:18). The student in professional preparation must understand that human development takes place through a variety of movement experiences. There are three spirals, in Figure 15, each representing one of the three key concepts. The spirals are arranged in ascending or descending order to the key concepts. The spirals are used, however, to denote a continuously flowing, progressive design. Each spiral connotes an entity within itself and the impressive power of the joining of many entities.



### Sub-Concepts

The sub-concepts are the major organizing elements of the curriculum and reflect the scope of physical education and human movement. Woodruff stated that a conceptual statement says very clearly what the student is expected to know when the learning experience is over. (14) The six sub-concepts selected from Brown's work are represented in Figure 16 by six spirals:

1. Moving is central in the development of man.
2. The nature of the development needed or wanted requires specific movement.
3. The human body determines how it will move within what the environment will allow.
4. Specific environmental variable factors in operation make for a specific difference in human movements.



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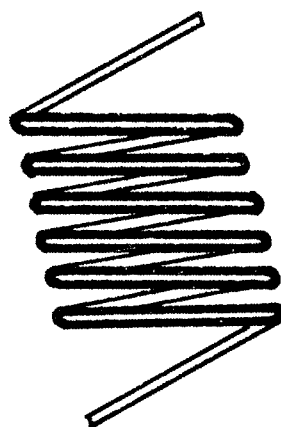


FIGURE 16  
SPIRAL ILLUSTRATION OF THE SUB-CONCEPTS

5. A wide range of non-verbal expression and communication are essential in the development of fully-functioning man.

6. Movement forms of a culture are specific to time-space and describe what it values. (122:3-8)

These sub-concepts are extensions of the key concepts and add a more detailed dimension of the broader key concepts. There is a slight elongation from the three spirals of the key concepts to the six spirals of sub-concepts accenting continuation and progression in the hierarchy of the model. There are other sub-concepts which need to be developed and others that are being described by writers in varying ways. These six seem to describe the major organizing elements in this curriculum plan. Each professional student should understand the growth and development of man and those aspects affected by movement; they should be aware of the nature of the environment and the varying conditions affecting human movement and learning; they should understand the principles of movement and all the program possibilities for movement experiences in physical education as well as the implications of human movement to health.

As students study human development, including movement skill development, and make application to movement situations and as they act on the learned concepts, it is apparent that the six sub-concepts are indeed the organizing elements in the curriculum reflecting the scope of physical education. These sub-concepts do state what the student is expected to know about movement, but they do not delve into the competencies a professional student is expected to possess. Physical educators would expect these sub-concepts to be a part of every program design regardless of grade level. The connection of the sub-concepts to the key concepts in the model

shows their relationships and the breakdown from general to more specific concepts. The spirals in the model continue to relate to flow, flexibility, and progression. In the process of the undergraduate preparation, even though the model shows a hierarchy, no more importance is attached to one set of concepts than to the other. Both are important and serve a purpose in the program design. The spirals are the same size throughout the model denoting equal importance of each phase of the theoretical framework.

The student must understand the relationship of the key concepts and the sub-concepts to the fully functioning individual. Actually, the pendulum and the first two sets of spirals, representing the concept, the key concepts, and the sub-concepts, could be applicable to any physical education program design on any grade level. The differentiation of grade level follows later in the model, but the potential teacher needs this basic understanding throughout her professional preparation. The major concept of human movement, the three key concepts, and the six sub-concepts are considered basic to a program of physical education and form the theoretical components of the curriculum. These three areas in the hierarchy of the model should undergo little, if any, change, if the profession basically believes in these concepts. These three areas need further research. They have been accepted because, to this date, they seem to be meaningful and philosophically sound as the base of undergraduate professional preparation as well as for the profession of physical education itself.

### Learning Opportunities

Figure 17 shows the six spirals representing the learning opportunities in the

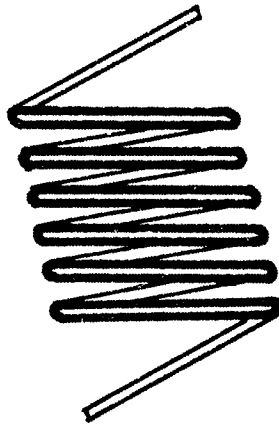


FIGURE 17  
SPIRAL DELINEATION OF THE  
LEARNING OPPORTUNITIES

model. They flow directly from the six sub-concepts and imply a continuous flow of sequence. The learning opportunities are not part of the top of the hierarchy and therefore may change from time to time, or as the situation or program design may demand. The learning opportunities represent the point at which the design becomes operational. When developing a program design, one must always be cognizant of the incorporation of the theoretical components into the operational devices.

The learning opportunities represent the various chances in the curriculum for a student to gain competencies. The opportunities could serve as guides in selecting subject matter. Brown described four areas of movement learning experiences to identify those learning opportunities available for the activity-oriented phase of the undergraduate curriculum:

1. conditioning and training
2. composing movement
3. managing one's self in movement in the environment
4. participating in established non-verbal recreative movement forms (122:1)

Other learning opportunities must be available in the undergraduate preparation curriculum to allow for the complete program. Theoretical areas involving neither movement nor activity as such must be considered. Even though the concept of movement permeates all learning, it need not be necessarily in activity form. Therefore, the writer has added two other learning opportunities that are general and inclusive of the many facets of an undergraduate program:

5. professional laboratory experiences
6. experiences in theoretical learnings

The material on page 91 shows how certain courses presently included in

undergraduate programs might be categorized under the learning opportunities.

Practically all courses in present curricula fit into one of the six areas. It should also be noted that, in placing certain courses under certain learning opportunities, there could very well be some overlapping. The overlapping is more desirable than not because it could be reinforcing to the learner.

#### Conditioning and Training

- gymnastics/tumbling free exercise
- adaptive physical educ.
- physiology of exercise and movement

#### Composing Movement

- modern dance
- dance composition
- movement exploration
- methods in movement
- fundamentals and dance

#### Managing one's self in movement in the environment

- body mechanics
- movement fundamentals
- development & analysis of movement
- fundamentals of motor skill learning

#### Participating in established non-verbal recreative movement forms

- Sports:
  - archery, badminton, golf, fencing, tennis, swimming, etc....
- Games:
  - social recreation
  - elementary school
  - physical education

#### Professional Laboratory Experiences

- officiating
- coaching
- intramural/extramural
- observation & participation
- student teaching

#### Experiences in Theoretical Learning

- principles
- history
- tests and measurement
- methods (PE and Health)
- organization & administration
- curriculum

### Competencies

A competency indicates ability and proficiency in various aspects of teaching. Every profession attempts to prepare competent personnel; this is one of the goals of teacher education. Various state departments, institutions of higher education, public school systems, and university and college departments often expect different kinds of competencies. This is not to indicate that the effectiveness of the prospective teacher is any greater or lesser because the competencies might be stated differently. It merely indicates that a "good teacher" has not yet been clearly defined. However defined or implemented, the intent of preparing teachers is stable.

Figure 18 is representative of the seven competencies needed for those preparing to teach health and physical education. Each statement is an all inclusive one which could be broken down into many specific competencies. The competencies are listed as guidelines in the approved program approach for teacher education in North Carolina. Institutions involved in teacher education seem to interpret these guidelines as the competencies desired in a future teacher. The seven competencies related to this model follow:

1. The student should develop the principles in the area of health and physical education compatible with current education philosophy.
2. The student should possess a basic knowledge in the sciences.
3. The student should have knowledge and competency in regard to organizing, planning, administering, and evaluating the various aspects of the total program of physical education.
4. The student should acquire knowledge of and skill in a wide variety of activities; they should be able to analyze motor skills; and have a knowledge of methods and materials in teaching and coaching.



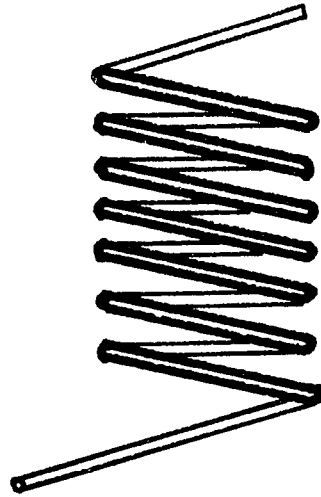


FIGURE 18

SPIRAL DEPICTION OF THE COMPETENCIES

5. The student should have command knowledge and understandings in the various aspects of healthful living.

6. The student should develop competencies that will enable her as a teacher to plan or assist in planning and conducting programs of health services, healthful living, and health instruction.

7. The student should possess sufficient preparation for later pursuit of graduate study in the area of physical education and health. (69:34-36)

These competencies embrace the total undergraduate professional preparation program design. It is toward the attainment of these competencies that curriculum developers should experiment with different approaches, designs, models, and courses to ensure their attainment by each student. Competencies are gained through a multiplicity of experiences. Course work alone does not ensure the attainment of such broad and inclusive competencies. Courses probably contribute seventy-five percent to the fulfillment of the competencies for those involved in teacher education. The conceptual approach might add another dimension to the attainment of competencies through more experience-oriented rather than course-oriented opportunities. The approach might add a feature of flexibility in the curriculum and lessen rote factual learning. Those students who have gained certain concepts about teaching, about children, about movement, and about the profession of physical education have exhibited understanding and effectiveness as a teacher.

Figure 18 illustrates that the competencies are also conceived of in spirals because they should not be separate and apart from the intent and purpose of professional preparation. In fact, they are major considerations in designing a curriculum. As the competencies are interwoven into the levels of progression there should be a continuation of effect in developing them. Each spiral indicates that

each of the competencies might be achieved separately by courses or experiences. On the other hand, the idea of competencies spiraling indicates the blending of the composite competencies to make an effective teacher.

It should also be noted in Figure 18 that the model shows a spray-like extension from the competencies to indicate either that others might be added, or that the teacher should always continue to grow in gaining competencies. The seven competencies listed are only samples; the extension may reach out as far as a person or an institution might choose.

#### Levels of Progression

The four overlapping spirals that are connected onto the competencies, as shown in Figure 19, represent the developmental phases or levels of progression through which the competencies might be attained. The traditional four year pattern of undergraduate professional preparation is depicted with the elongated wire reaching out to symbolize that teacher education is a never-ending process. The four spirals are overlapping because the experiences should blend harmoniously. If the four spirals must denote four years then the overlap would show the continuity of learning experiences and the sequential pattern in the program design that does not stop from one year to another or from one experience to another. Much thought needs to be given to individualizing the programs of teacher preparation. Dr. Ole Sand said, in a personal interview with the writer in the spring of 1969, that educators need to change their attitude about teacher education. Instead of thinking of it as something that occurs before one begins to teach, it must be viewed as something that

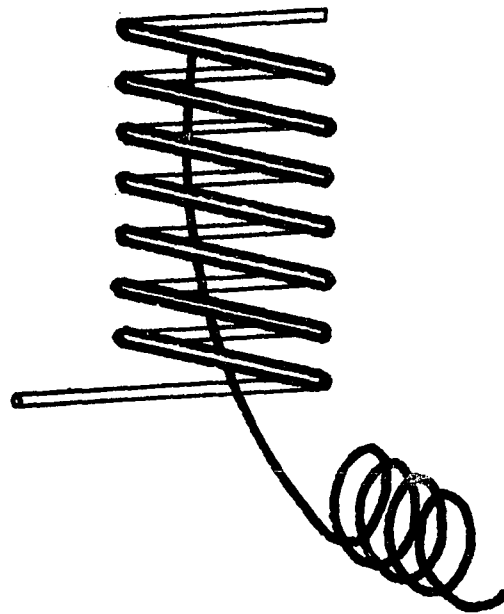


FIGURE 19

SPIRAL REPRESENTATION OF THE  
COMPETENCIES AND LEVELS  
OF PROGRESSION

continues throughout the career of a teacher. The concept of continuing teacher education is the idea portrayed by the model. A terminal degree at the completion of four years is foreign to this concept because it implies that all should follow the same path toward preparation and that there is a stopping place.

### Learning Domains

The tripod noted in Figure 20 of the model represents the three learning domains: the cognitive domain, the developmental domain, and the affective domain. The learning domains embrace all the components of the model for every part of education must be within the psychological realm of learning. The entire spiral model swings freely to touch each learning domain. There are certain key words which explain the domains in terms of learning and which could be re-stated in terms of behavioral objectives:

#### Cognitive Domain

The student: comprehends  
synthesizes  
understands  
knows

#### Developmental Domain

The student: maintains  
practices  
retains  
appraises  
adjusts  
lives  
behaves  
demonstrates  
examines

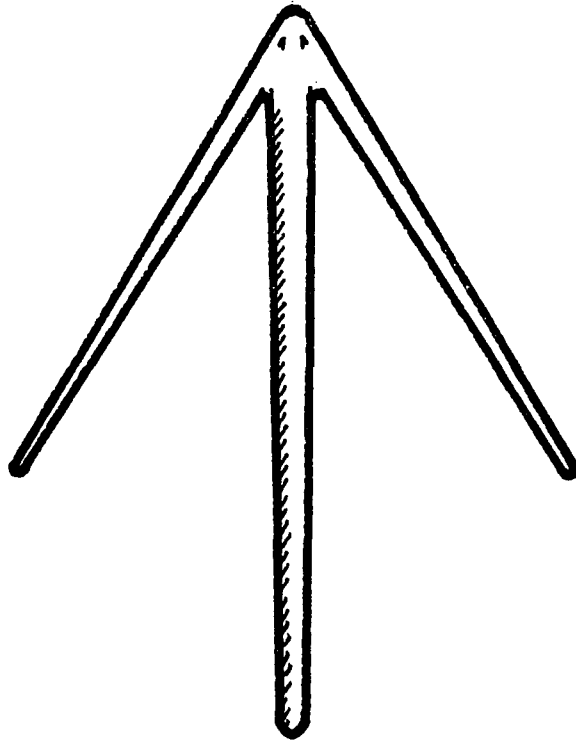


FIGURE 20

TRIPOD DEPICTION OF THE LEARNING DOMAINS

### Affective Domain

The student: accepts  
develops  
displays  
believes

The cognitive domain of learning describes the process of knowing or perceiving. The affective domain represents learnings more closely related to feelings and emotions while the developmental domain denotes the process of growing, evolving, or expanding. All three domains of learning are essential in the learning process and therefore are vital in this conceptual model of professional preparation.

Behavioral objectives and long range goals are ever present throughout the process of undergraduate professional preparation. The long range goals are the general guides for the desired outcomes of the sequential program of physical education. They indicate what is expected of the student after experiencing the total undergraduate professional preparation program and therefore are part of all learnings. The long range goals might correspond to the competencies already mentioned. The behavioral objectives are specific ways in which the student should be able to think, feel, and act at the end of each level of progression as a result of participating in a sequence of physical education experiences. (73) The behavioral objectives are also part of all learning and are incorporated in the learning domains.

### Summary

The model is representative of a conceptual approach to the undergraduate professional preparation for women in health and physical education. The ideas derived from the model might be applicable to other disciplines or they might be used

in various other ways.

The complete model, Figure 21, shows a continuous, spiraling program design based upon the theoretical assumption that human movement is the core of the body of knowledge for physical education. The individual preparing to become a teacher is of primary importance in the scheme and is central to the model from every point of view. It should be noted that the spirals are not broken, signifying a sequence of concepts that lead into many learning opportunities which, in turn, allow the student to gain competencies. The competencies are connected by spirals that are overlapping and continuous indicating that teacher education only begins the unceasing process of preparing competent teachers. The learning domains embody all of education. Each phase of the model can swing in such a way as to touch each of these domains.

Thus, the model hangs as a mobile-- ever moving, even as man himself must move to live.



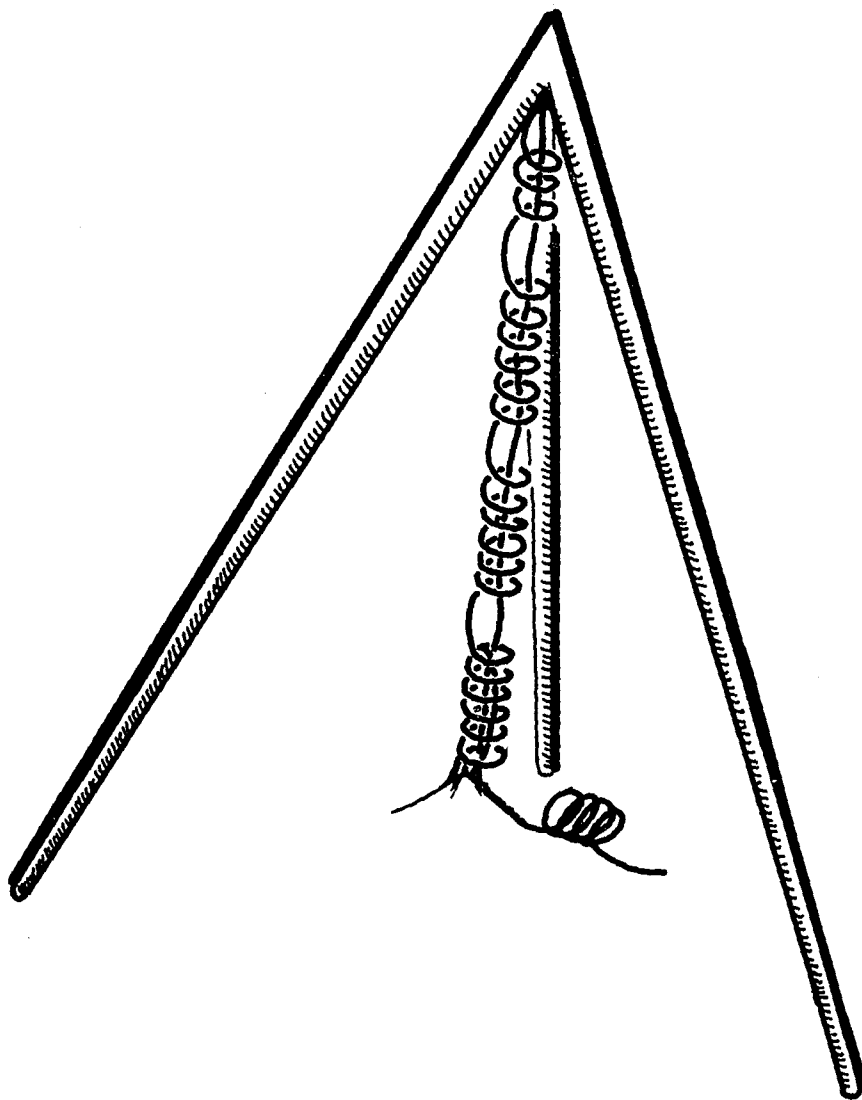


FIGURE 21

THE MODEL

## CHAPTER VI

### EXAMPLES, EVALUATION, AND IMPLEMENTATION

The purpose of this chapter will be to show how the model, as a theoretical framework, may be used to design a pattern of curriculum. Some specific examples will be cited showing the use of the model in the development of a course and, in reverse, to review a course in light of the model to ascertain whether or not the course is relative to the basic concepts. In addition, ways will be discussed in which the suggested conceptual approach to an overall curriculum design may be evaluated and implemented.

#### Examples

The model serves only as a vehicle; the understanding of the various concepts in the model and their relationships to the undergraduate preparation is the important factor in designing a pattern of curriculum. It is not within the scope of this study to design a complete undergraduate professional preparation program for women. Such a task is the challenge to curriculum developers within each institution. Only a few suggestions will be offered. First, the curriculum designer using this model must believe in the basic concepts described. The designated competencies should be kept in mind throughout the development of the curriculum design. Assuming the first two years are devoted mainly to liberal arts and general education, professional prepara-

tion should begin as soon as possible in the professional activity courses. Perhaps one of the first experiences should be an activity course in movement. Emphasis upon the concepts of movement should be apparent throughout the professional activity courses. During the sophomore year, the students should experience some theoretical study in the area of movement. In addition, they should experience it in a practical way, either in course work or with children.

A foundation course in physical education should be based upon movement meaning, and physical education in sports form, dance forms, and recreation forms. Every opportunity should be made available for observation of children and young people in motion. Whenever possible independent opportunities should be provided for those who wish to progress and are capable of progressing along the continuum of education at a more rapid and thorough rate. This can be accomplished through readings, independent and individualized work and study with children, video-tape observations or perhaps some micro-teaching. When the more detailed professional work begins, it is a matter of structuring opportunities, experiences, and courses with the major concepts involved. Some students may be able to gain competencies and learn concepts through a variety of experiences other than course work. This idea is prevalent now in professional preparation, but not necessarily using the conceptual approach. The writer believes in an experience-oriented more than a course-oriented curriculum. There is no question, however, about the confines of the traditional system of education prevalent today. Courses and number of hours for graduation and certification seem to be high on the list of priorities of state departments of education and of institutions.

The type of program design described in this study can be developed within such a traditional framework. The curriculum developer must be sure the concepts are being taught and conceptual teaching is undertaken. No undergraduate curriculum can be developed with this approach unless all who teach in the undergraduate program believe in the approach and attempt it.

The process of an activity course and a theory course through the conceptual approach will be shown. No attempt will be made to pursue the development of an entire curriculum. A sample will be given of how a course might evolve using the conceptual approach and the model as a theoretical framework.

Example I on page 105 shows the development of experiences in swimming. Only part of the competency indicated was met because the student was involved in concept learning in an activity mainly to satisfy the particular purpose of the student. The last part of the competency may be met in a number of other experiences or courses. The activity could have been any other sport depending upon the student purpose. The purpose and competency were met by various experiences in swimming including courses, intramurals, varsity team, and professional laboratory experiences. Perhaps a more specific concept in this particular example would be the movement of the body through a different media.

The design might be developed in the manner shown, or it could start with the desired competency and work up the model to evaluate the course in swimming or experiences in swimming to ascertain whether or not the concepts of movement were being obtained. The purposes of the two approaches are different. If the course is developed from the concept, this ensures that the conceptual approach to

EXAMPLE I:

Possible Student Purpose: -- to develop skills needed for adult and individual interests and needs.

The Concept: Human Movement

↓  
Key Concept: Man Develops Through Movement

↓  
Sub-Concept: The nature of the development needed or wanted requires specific movement.

↓  
Learning Opportunities: Participating in Established Non-Verbal Recreative Movement Forms

↓  
Learning Domains:

Cognitive: She knows that competitive swimming will increase endurance.

Developmental: She demonstrates increased endurance for efficient effort and performance by developing the butterfly stroke.

Affective: She believes in individual practices during free time.

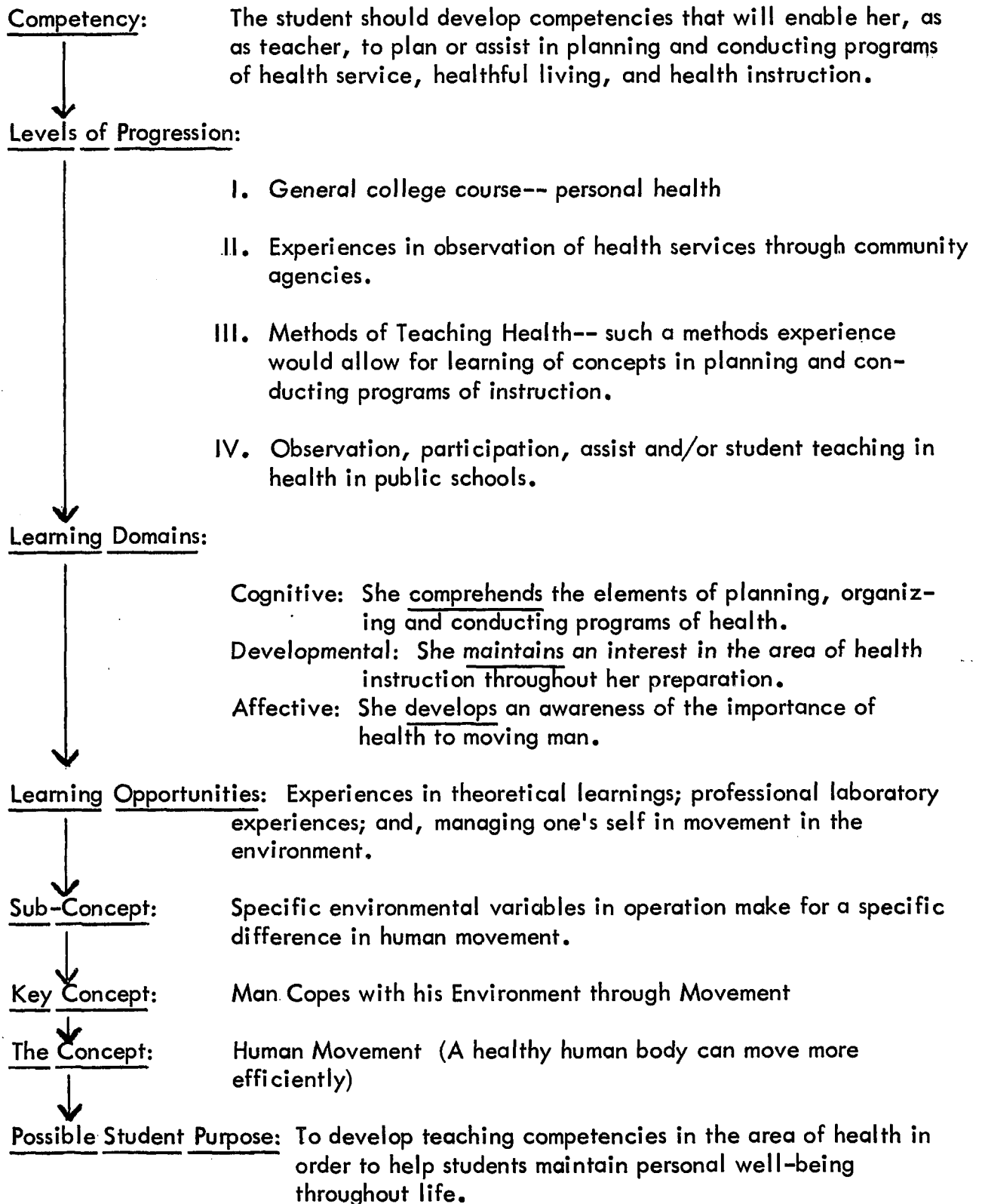
↓  
Levels of Progression:

- I. Professional activity course-- swimming
- II. Life Saving and WSI-- intramurals
- III. Methods of aquatics-- varsity team
- IV. Student Teaching-- student has opportunity to teach swimming during this time and assist with coaching a varsity swim team.

↓  
Competency: The student should acquire knowledge of and skill in a wide variety of activities; she should be able to analyze motor skills and have a knowledge of methods and materials in teaching and coaching.

learning is occurring. If the reverse action were taken, the approach would be an evaluative process to determine what concepts are being learned from this particular experience. Each serves a worthwhile and vital purpose. The curriculum, experiences, or course could be developed either way. The assumption must be accepted that the teacher is using the conceptual approach or is committed to concept learning and willing to evaluate in terms of the concepts described or else the curriculum cannot be effective. The success of the program design depends upon the teacher. The reason for projecting such an idea into undergraduate professional preparation is so future teachers may be prepared to teach using the conceptual approach.

Example II on page 107 shows how one might begin at the opposite end of the model, starting with a desired competency and working up the hierarchical arrangement to assess whether or not the experiences and/or courses offered to meet this competency are also forming certain broader concepts and if the student's purpose is being achieved. An example in the area of health was selected to note the relationship of human movement to health. One might study the conceptual approach as used by the School Health Education Study (73) for a more specific example in health. The concepts in the School Health Education Study are more detailed and specific to health and might be applied to professional preparation. However, in the preparation of women for the dual purpose of teaching health and physical education, the concept of human movement can be inclusive of any health areas. Health and human movement are so closely related in terms of man and his environment that the classification of any curricular pattern involving both could be examined within one theoretical framework.

EXAMPLE II:

The two examples cited were selected at random. An entire curriculum could be developed using the same process and following the conceptual approach using the model as a guide for the theoretical framework. The development of a curriculum using this approach would be time consuming, but the end product, a competent teacher, would make the effort worthwhile. Development of sound curricula for the professional preparation of teachers has been a major concern not only of the physical education profession and the education profession, but of American democracy. Thus, efforts to develop competent teachers for American society today and tomorrow continue to undergo study and assessment in colleges and universities.

#### Evaluation of a Program Design

In essence, educators are interested in the preparation of teachers as observers, evaluators, and influencers of the behavior of children. Socrates said "the unexamined life is not worth living." And so, the unexamined professional preparation curriculum may not be worth experiencing. The need to evaluate students and the curriculum is constant. Because each institution, each curriculum design, and each educator differs, there are certain principles which must be accepted in terms of measurement and evaluation. The following may serve as guidelines in the evaluative process:

1. Measurement and evaluation begin with the objectives of the program.
2. Measurement and evaluation have two basic references-- the means or the process and the ends.
3. The ends of the professional preparation program (the individual and her success) are the only valid bases for judgments.
4. Wholeness of measurement and evaluation is always preferred in judging professional preparation.



5. The process of professional preparation should constitute the procedures.  
(8:105)

The evaluation and measurement of each program design attempted in professional preparation is advocated. Programs will be evaluated continually in departmental self-studies, by state approved program evaluations, National Commission on Accreditation for Teacher Education, and regional accrediting boards. Perhaps the most valuable test of a curriculum design is a self evaluation.

Implementation

The suggested conceptual approach for determining patterns of professional preparation for women in health and physical education can be implemented by forward looking individuals in the profession who are concerned and interested in designing programs for the development of competent teachers. The examples given in this chapter indicate some specific ways of implementing the conceptual approach. Implementation will occur as teachers appraise their teaching methodology in terms of concept learning and teaching, and attempt a different and new approach within one or two courses. As course outlines are reviewed, evaluated and revised, implementation of the conceptual approach will occur if the course is revised with concept learning as one priority.

Implementation will occur as departments begin experimental programs on the undergraduate level if curriculum developers are willing to attempt this approach to learning. When self-studies are made, many innovative thinkers in the field of physical education will recommend the implementation of such an approach, if not totally, at least partially. Those colleges and universities just beginning professional

preparation in physical education could implement this suggested approach from the very beginning with the total curriculum.

Implementation should begin on a modified basis and on an experimental basis to ensure the best evaluation of the approach and model. No effort has been made to encourage complete revision of all undergraduate programs. There are many variables to be considered before implementing such an idea. However, partial implementation, as an institution finds it feasible, is recommended. The fact that this approach might be relatively new to professional preparation does not mean a complete overhaul of all curricula, but neither does it mean a complete withdrawal from a new ideal. Metheny has said, "Theoretically, involvement in these experiences will induce the learning of certain conceptions or concepts." (54:92) The writer urges curriculum developers for undergraduate professional preparation in health and physical education to become involved with the conceptual approach.

## CHAPTER VII

### SUMMARY AND RECOMMENDATIONS

#### Summary

An effort has been made to identify concepts and relate them to the development of a program design for undergraduate professional preparation in physical education. Experimentation with the design should be implemented because with experience the conceptions begin to have meaning. Metheny, discussing the point that educational form is an organization of experiences, stated that "...education may be described as a process that serves to activate meaningful learning, or as a process that activates meanings." (54:93)

She elaborated further:

The list of experiences that answer to the name of education in any area of human understanding is endless, and new experiences and new areas will be added to the list tomorrow, and tomorrow, and tomorrow as long as man endures. (54:93)

Teachers, curriculum developers, and others, who seek to involve the students in conceptual learning experience, must possess a special knowledge of learning to move and moving to learn.

Socrates thought about these things many centuries ago, he recognized that men must move in order to understand themselves. Only by moving their own bodies with and against the forces of the universe could the cave men discover the objective forms of reality.... And as they tested those hypotheses by moving with, and against, the forces of the universe, they created their own human culture and found their own sources of meaning within it. (54:102)

...and so must every man move  
and so must every man find meaning.... (54:102)

The number and kinds of methodology a teacher may use are limitless, and the array of ideas and concepts a student may formulate within these complex movement experiences is endless. (54) Metheny said that "many of the concepts will be more meaningful to students if they develop them within the terms of their personal experiences." (54:103)

An effort has been made to describe the growing and developing individual in his wholeness as represented in the model by the four dimensions of a person. The point has been made that the individual is, by his very nature, a moving organism and that movement is central to his existence. A portrayal has been given of the interaction of the individual to learning, concepts, and the nature of learning. The interrelatedness of the model, the concepts, learnings, and the individual has been shown with the aim of developing a competent teacher of health and physical education.

An attempt has been made to show how undergraduate students can form concepts about movement, about the profession, about sport forms, dance forms, exercise, education, and about themselves as teachers. The model is a vehicle showing a hierarchy of concepts. It is characterized by flexibility, versatility, completeness, and interrelatedness. The model itself should communicate movement, the wholeness of the individual, the spiralling and related concepts relative to movement as the necessary ingredients that an undergraduate student should possess, how these might be obtained, and the levels of progression stressing individualized and continuing professional preparation. All of these are encompassed by learnings characteristic

of every aspect of life itself.

At one time Albert Einstein observed: "I seldom think in words at all... I work out the idea first...." This study has been such an endeavor. The writer has been interested in and concerned about professional preparation. The pursuit of a study in this area characterized the beginning of some reorganization of the writer's thinking in respect to concept teaching and learning and a theoretical model as a framework for a curriculum design. The conceptions have been fuzzy at times and not easily comprehended, but the opportunity to explore an idea in learning was the hallmark of a right to think. Hopefully, out of this process of human thought will be fashioned programs of professional preparation for women that will be, in reality, an exploration of concepts.

A moving part of motion...  
 A change part of change, ... a discovery  
 Part of a discovery...  
 Too much like thinking to be less than thought. (54:92)

The significance of this study cannot and should not be realized until institutions and physical educators have had an opportunity to explore its full meaning and impact on an experimental basis. Now that the idea is formulated, one can organize the materials more effectively for designing a program for the preparation of teachers in health and physical education.

High standards of preparation and practice are essential for better education. The public and the profession must be assured that teachers are qualified to carry out their responsibilities. (64:4)

The job of professional preparation is a complex and difficult task, and yet, it remains the challenge!

### Recommendations for Further Study

1. The physical education profession should define its body of knowledge and the concepts, key concepts, and sub-concepts identified should receive more thorough research in relation to the body of knowledge.
2. An experimental or pilot program using the model and the ideas gained from it should be inaugurated.
3. Courses in many undergraduate professional preparation programs might be revised using the conceptual approach to teaching and learning in physical education.
4. Patterns of programs and model experimental programs should be developed throughout the country and published for the use of other institutions.
5. The model should be reviewed continuously.

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APPENDIX

## UNIVERSITY OF CALIFORNIA, LOS ANGELES

### The Major in Physical Education - UC LA

The major in Physical Education, UCLA, is an academic major in the study of human movement (Kinesiology). As a result of this decision by the California State Board of Education, graduates of the program at UCLA, are; (1) eligible for secondary-school administration, and (2) eligible to teach in more than one subject-matter field.

#### Direction and Focus

Kinesiology refers to the scientific study of the role of movement in the life of man. The scholarly study of the phenomenon of human movement is characterized by the following broad problem areas:

1. The kinesiological nature of man (basic determinants of human movement);
2. Development of man through movement;
3. Maturation and movement capabilities;
4. Individual differences affecting movement;
5. Environmental variables influencing human movement;
6. Human expression through movement.

These broad problem areas form the bases upon which faculty conduct research, and where both undergraduate and graduate students commence and continue investigations leading to the elucidation of the phenomena of human movement.

Methods of investigation in the field vary with the nature of the problem areas and subject matter which are generally associated with the biological and social sciences. The role of kinesiology as a science is to accumulate data from which generalizations or theories may be formulated. Descriptive, historical and experimental studies provide such data.

The undergraduate program is designed to provide a basic education for students who will give major attention to research as well as for those students preparing for application of the body of knowledge as teachers of physical education. The emphasis in preparation is upon scientific investigation of movement phenomena. The graduate of this program should be a true scholar-teacher; one who at any educational level could lead youth, or adults, toward a complete understanding of the human body in movement.

### Conceptual Framework of Kinesiology

The revised major in physical education at UCLA consists of a progressive sequence of courses which deal with the scholarly study of kinesiology, or, human movement.

The word kinesiology was chosen inasmuch as it clearly designates the field of inquiry: kinesis - movement, ology - study of. Kinesiology is the study of movement, of human movement.

Because of the basic concern of the field with dynamic man and the consequent relationships with other disciplines, students in kinesiology pursue courses largely of two kinds: those designed to develop and integrate concepts of human movement and those in an allied field or related specialization elected from either psychology, sociology or zoology. Students seeking higher degrees are directed toward depth studies utilizing both kinesiology and the allied field. For prospective teachers, graduate programs also incorporate educational theory.

Movement. Human movement involves man acting in his environment through time and space and with force. It is the change in position caused by the energy of the organism as it interacts with its environment in time and space. It is concerned with the scientific facts, principles, and understandings fundamental to the effective development and function of man in his cultural setting.

Man. The nature of man, involving many individual variables, determines his movement capacities. As man develops, he develops his movement, which in turn influences his movement capacities and contributes to the general development of his total organism.

Environment. Since man and his environment are an entity, his environment influences his movement. The environmental variables include the physical and cultural aspects.

The possibilities of human movement are described, analyzed, and measured by relating the human variables, the movement characteristics of time, space, and force, and the environmental variables.

These possibilities are of three kinds: (a) basic movements inherent in the organism, (b) movement skills or combinations of basic movements, and (c) movement designs (structured and unstructured).

### Preparation for a Career

Preparation for a career usually follows this general pattern.

### I. Lower Division (Freshmen - Sophomore)

In the first two years of undergraduate work emphasis is placed upon a broad preparation in the Humanities, the Physical and Life Sciences, the Social Sciences, and the skills and understandings in Human Movement essential for advanced work in the upper division. Further, the student is expected to select an allied field from either Physiology, Psychology or Sociology, dependent upon his future objectives, and to complete prerequisites for upper division requirements in that discipline.

### II. Upper Division (Junior - Senior)

During the two upper-division years, greater emphasis is placed on specialization through the completion of required and elected physical education and allied field courses. Such courses are determined, aside from certain requirements, by the student himself in conference with a departmental adviser. The student's future educational goal should be clear by this time. He may elect to:

1. Continue preparations for teaching on the elementary, secondary or college and university level; or,
2. Select a sequence of courses designed to prepare individuals for a career as Human-Factors consultants in industry, for research organizations, or for the military (NASA Space Research, ONR - Underwater Research, Army-Weapons handling, etc.)

## UNIVERSITY OF CALIFORNIA, LOS ANGELES

REQUIREMENTS  
 PHYSICAL EDUCATION MAJOR  
 PHYSIOLOGY ALLIED FIELD

I. Lower Division Requirements

- A. Subject A - By examination or non-credit course.  
American History and Institutions - By examination or one-quarter course.
- B. Foreign Language - Five quarter courses.
- C. Mathematics - Two years high school mathematics (It is strongly recommended that Mathematics 3A, B, C be completed during lower-division work).
- D. English Composition - English 1 or 33C with Grade "C" or better.
- E. Physical Sciences - Chemistry 1A, 1B, 1C (It is strongly recommended that Chemistry 4A, 4B, 4C, 6A, 6B, 6C be completed prior to entry into upper division work).
- F. Life Sciences - Biology 1A, 1B, 1C; Psychology 12 (It is strongly recommended that Human Anatomy and Physiology, P.E. 15, also be completed).
- G. Social Sciences - Psychology 10; Sociology 1A, 1B.
- H. Humanities - Three courses in Philosophy or Literature.
- I. Limited Electives - Two courses from Art, History, Literature, Music or Philosophy.
- J. Physical Education -
  - 1. P.E. 2 - Activities to meet proficiency requirements.
  - 2. P.E. 10A-10B - Introduction to Kinesiology (must be taken at UCLA).

II. Upper Division ( Two or more electives in addition to required courses).

- \*P.E. 110A-110B - General Kinesiology
- P.E. 112 - Analysis of Expressive Movement

P.E. 113	- Assessment of Human Movement Skill
P.E. 114	- Kinesiotherapy
P.E. 118	- Conditioning for Maximal Performance
P.E. 119	- Movement Strategy in Team Play
* P.E. 120	- Human Movement Development
P.E. 122	- Perceptual Motor Education
** P.E. 136	- Sports in American Life
* P.E. 148	- History of Physical Education in the United States
P.E. 193	- Kinesiometrics
P.E. 199	- Special Studies in Kinesiology
* Zoology	- Any four (4) upper-division physiological courses in the Zoology Department.
*** Psychology 141	- Elementary Statistics in Psychology

REQUIREMENTS  
 PHYSICAL EDUCATION MAJOR  
 SOCIOLOGY ALLIED FIELD

I. Lower Division Requirements

- A. Subject A - By examination or non-credit course.  
American History and Institutions - By examination or one-quarter course.
- B. Foreign Language - Five quarter courses.
- C. Mathematics - Two years High School Mathematics (It is strongly recommended that Mathematics 3A, Mathematics for Life Science Students, be taken as lower-division work).
- D. English Composition - English 1 or 33C with grade of "C" or better.
- E. Physical Sciences - Physical Science 1, (Physics) Physical Science 2 (Chemistry).
- F. Life Sciences - Biology 2A; Psychology 12, P.E. 15.

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\*Required

\*\*Special section for P.E. and Sociology major and minor students

\*\*\*Prerequisite for, or may be taken concurrently with P.E. 110A-110B



G. Social Sciences - Psychology 10, Sociology 1A-1B; Anthropology 2A, 12; Sociology 19.

H. Humanities - 3 courses in Philosophy or Literature.

I. Limited Electives - 2 courses from Art, History, Literature, Music or Philosophy.

J. Physical Education -

1. P.E. 2 - Activities to meet proficiency requirements

2. P.E. 10A-10B - Introduction to Kinesiology (Must be taken at UCLA).

II. Upper Division (Two or more electives, in addition to required courses).

- |                 |  |
|-----------------|--|
| *P.E. 110A-110B | - General Kinesiology  |
| P.E. 112        | - Analysis of Expressive Movement  |
| P.E. 113        | - Assessment of Human Movement Skill   |
| P.E. 114        | - Kinesiotherapy   |
| P.E. 118        | - Conditioning for Maximal Performance   |
| P.E. 119        | - Movement Strategy in Team Play   |
| *P.E. 120       | - Human Movement Development   |
| P.E. 122        | - Perceptual Motor Education   |
| P.E. 136        | - Sports in American Life  |
| *P.E. 148       | - History of Physical Education in the United States                           |
| P.E. 193        | - Kinesiometrics   |
| P.E. 199        | - Special Studies in Kinesiology   |
| Psychology 141  | - Elementary Statistics in Psychology  |
| Sociology       | - Four upper-division courses selected with the approval of the major advisor. |

## REQUIREMENTS PHYSICAL EDUCATION MAJOR PSYCHOLOGY ALLIED FIELD

### I. Lower Division Requirements

A. Subject A - By examination or non-credit course.

American History and Institutions - By examination or one-quarter course.

B. Foreign Language - Five quarter courses.

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\*Required

- C. Mathematics - Two years High School Mathematics (It is strongly recommended that Mathematics 3A, Mathematics for Life Science Students, be taken as lower-division work).
- D. English Composition - English 1 or 33C with grade "C" or better.
- E. Physical Sciences - Physical Science 1 (Physics), Physical Science 2 (Chemistry).
- F. Life Sciences - Biology 2A, Psychology 12, P.E. 15.
- G. Social Sciences - Psychology 10; Sociology 1A-1B.
- H. Humanities - three courses in Philosophy or Literature.
- I. Limited Electives - two courses from Art, History, Literature, Music or Philosophy.
- J. Physical Education -
  - 1. P.E. 2 - Activities to meet proficiency requirements.
  - 2. P.E. 10A-10B; Introduction to Kinesiology (Must be taken at UCLA).

II. Upper Division (Two or more electives in addition to required courses).

- |                   |  |
|-------------------|--|
| *P.E. 110A-110B   | - General Kinesiology                                |
| P.E. 112          | - Analysis of Expressive Movement                    |
| P.E. 113          | - Assessment of Human Movement Skill                 |
| P.E. 114          | - Kinesiotherapy                                     |
| P.E. 118          | - Conditioning for Maximal Performance               |
| P.E. 119          | - Movement Strategy in Team Play                     |
| *P.E. 120         | - Human Movement Development                         |
| P.E. 122          | - Perceptual Motor Education                         |
| **P.E. 136        | - Sports in American Life                            |
| *P.E. 148         | - History of Physical Education in the United States |
| P.E. 193          | - Kinesiometrics                                     |
| P.E. 199          | - Special Studies in Kinesiology                     |
| ***Psychology 141 | - Elementary Statistics in Psychology                |

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\*Required

\*\*Special section for P.E. and Sociology major and minor students

\*\*\*Prerequisite for, or may be taken concurrently with P.E. 110A-110B

**\*Psychology**

- Six upper-division courses from the following areas:  
(two courses must be completed in each area)

- a. Learning and Learning Disorders
- b. Physiological Psychology
- c. Perception
- d. Personality and abnormal
- e. Developmental Psychology
- f. Social Psychology
- g. Psychological Measurement